# WHO ARE PHYSICISTS? WHAT DO THEY DO?

*by Sylvia Barisch*

- The 1964 median salary for physicists and astronomers taken as a group was $1000 higher than that of all scientists.
- The physics-astronomy group is younger than scientists in general.
- Forty-two percent of them are employed by industry.

So say recently analyzed statistics from the 1964 National Register of Scientific and Technical Personnel. Since 1954 the American Institute of Physics has maintained the physics and astronomy section of the register under contract with the National Science Foundation.

These statistics for the physics community have been gathered from questionnaires that scientists returned to us from an April 1964 mailing. They represent the full-time-employed group reporting salary. We ask each respondent to tell us such things as for whom he works, how long he has worked, how much he earns, what is his highest degree, what is his area of highest professional competence, and what is his principal work specialty.

Altogether 440 000 questionnaires went out to all scientists and 225 000 usable answers came back. It is estimated that the respondents included 90 percent of all those in the US who hold scientific doctorates. We of the physics-astronomy section mailed about 48 000 questionnaires and got back

The author is in charge of the physics-astronomy section of the National Register at the American Institute of Physics.

**Table 1. Industrial Salaries by Job and Experience***

| *Years of experience →* / *Work activity* | | *1* | *2–4* | *5–9* | *10–14* | *15–19* | *> 20* | *Total reporting salary* |
|---|---|---|---|---|---|---|---|---|
| DOCTORATE DEGREE | | | | | | | | |
| | *No.* | 57 | 323 | 531 | 445 | 193 | 253 | 1776 |
| Research and development (1832) | $Q_3$ | 13.2 | 14.3 | 16.2 | 18.3 | 19.7 | 22.0 | 17.4 |
| | $Q_2$ | 12.6 | 13.4 | 14.5 | 16.0 | 17.4 | 18.2 | 15.0 |
| | $Q_1$ | 12.0 | 12.5 | 13.5 | 14.7 | 15.0 | 15.7 | 13.5 |
| | *No.* | 1 | 12 | 97 | 226 | 168 | 326 | 773 |
| Management or administration (837) | $Q_3$ | | | 19.2 | 23.0 | 25.0 | 28.0 | 25.0 |
| | $Q_2$ | | | 16.8 | 19.8 | 22.0 | 24.0 | 21.0 |
| | $Q_1$ | | | 15.4 | 17.7 | 20.0 | 20.0 | 17.8 |
| | *No.* | 1 | 3 | 20 | 23 | 16 | 79 | 115 |
| Other (147) | $Q_3$ | | | | | | 23.0 | 22.0 |
| | $Q_2$ | | | | | | 21.0 | 18.5 |
| | $Q_1$ | | | | | | 18.0 | 15.3 |
| Total number (2816) | | 59 | 338 | 648 | 694 | 377 | 658 | 2664 |
| MASTER'S DEGREE | | | | | | | | |
| | *No.* | 57 | 353 | 437 | 305 | 106 | 133 | 1344 |
| Research and development (1418) | $Q_3$ | 9.4 | 10.3 | 12.8 | 15.0 | 16.8 | 16.5 | 13.8 |
| | $Q_2$ | 8.8 | 9.5 | 11.3 | 13.5 | 15.0 | 14.1 | 11.4 |
| | $Q_1$ | 8.4 | 8.8 | 10.2 | 12.0 | 12.5 | 12.0 | 9.8 |
| | *No.* | 1 | 18 | 58 | 131 | 87 | 131 | 402 |
| Management or administration (427) | $Q_3$ | | | 16.0 | 18.2 | 21.0 | 21.0 | 20.0 |
| | $Q_2$ | | | 13.5 | 16.2 | 18.2 | 18.0 | 16.2 |
| | $Q_1$ | | | 12.0 | 14.5 | 14.5 | 15.9 | 13.8 |
| | *No.* | 4 | 22 | 32 | 35 | 18 | 42 | 134 |
| Other (157) | $Q_3$ | | | | | | | 16.3 |
| | $Q_2$ | | | 10.9 | 13.0 | | 18.0 | 12.6 |
| | $Q_1$ | | | | | | | 10.4 |
| Total number (2002) | | 62 | 393 | 527 | 471 | 211 | 306 | 1880 |
| BACHELOR'S DEGREE | | | | | | | | |
| | *No.* | 37 | 494 | 426 | 197 | 88 | 92 | 1289 |
| Research and development (1357) | $Q_3$ | | 9.2 | 11.4 | 14.1 | 16.0 | 16.1 | 12.0 |
| | $Q_2$ | 7.5 | 8.5 | 10.4 | 12.5 | 13.9 | 14.5 | 10.0 |
| | $Q_1$ | | 7.8 | 9.2 | 11.4 | 11.5 | 12.3 | 8.5 |
| | *No.* | 1 | 46 | 88 | 113 | 73 | 119 | 412 |
| Management or administration (446) | $Q_3$ | | | 13.0 | 18.0 | 19.0 | 22.0 | 18.0 |
| | $Q_2$ | | 9.0 | 11.3 | 15.0 | 16.0 | 18.0 | 14.4 |
| | $Q_1$ | | | 9.9 | 13.5 | 13.8 | 14.0 | 11.5 |
| | *No.* | 3 | 53 | 43 | 42 | 28 | 42 | 198 |
| Other (221) | $Q_3$ | | 9.0 | | | | | 13.5 |
| | $Q_2$ | | 8.1 | 10.0 | 12.0 | 12.0 | 15.6 | 11.0 |
| | $Q_1$ | | 7.3 | | | | | 9.0 |
| Total number (2024) | | 41 | 593 | 557 | 352 | 189 | 253 | 1899 |

* Salaries are in thousands of dollars per year; "No." means number in group analyzed; $Q_3$ is third-quartile salary, which divides group into one quarter paid more and three quarters paid less; $Q_2$ is median (second quartile); $Q_1$ is first quartile; empty spaces indicate group was too small to justify analysis; numbers in left-most column indicate total number in group and include those *not* reporting salary.

about 35 000 of them. Many of the respondents were eliminated, however, on the basis of their answers. For example, 2000 of the 1964 respondents belonged in other disciplines and we sent their responses to more appropriate societies; 3000 did not meet minimal qualifications for inclusion (most of them will meet the requirements this year and we will contact them again); 3000 engineers were processed by us for the register but not included in the physics-astronomy group. The 27 000 remaining answers were processed for the physics-astronomy section.

### *How should we count?*

As is true of all statistics, classification is difficult. Do you group according to training, job titles, professional identification, memberships, or some other set of criteria? The numbers you get depend upon the grouping you choose. In the 1964 questionnaire, scientists were asked to classify themselves by selecting from a list of "major disciplines." For most of the physics-astronomy group this did not present a problem. However, some wrote in their own jobs—"teacher" or "administrator." Others, particularly in interdisciplinary areas of science, wrote in "biophysicist," "operations analyst," "chemical physicist," etc. Tables 1-4 show salary information compiled for those who identified themselves professionally as physicists

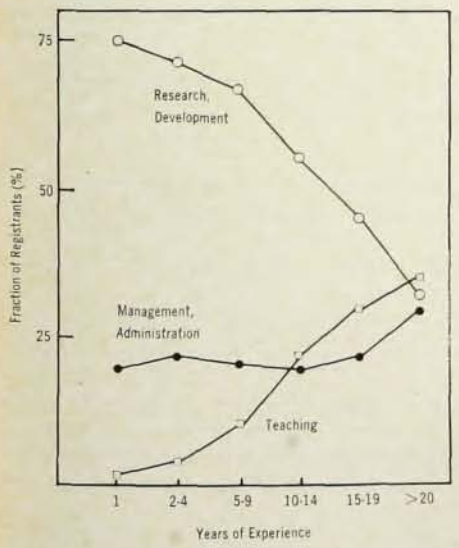



**Fig. 1. Work activity as a function of years at work. Graph shows that physicists and astronomers "grow" out of research and development into management and teaching.**

**Current statistics from the physics-astronomy section of the National Register show that 20 000 persons in salary analyses are earning more than colleagues in other sciences and more than a similar group was earning two years earlier.**

## Table 2. Academic Salaries by Job and Experience

| *Years of experience →* / *Work activity* | | *1* | *2–4* | *5–9* | *10–14* | *15–19* | *> 20* | *Total reporting salary* |
|---|---|---|---|---|---|---|---|---|
| DOCTORATE DEGREE | | | | | | | | |
| Research and development (2279) | *No.* | 154 | 539 | 593 | 466 | 174 | 289 | 2150 |
| | $Q_3$ | 8.7 | 10.4 | 14.0 | 16.0 | 18.0 | 19.4 | 15.0 |
| | $Q_2$ | 8.1 | 8.7 | 10.0 | 14.0 | 15.8 | 16.6 | 11.6 |
| | $Q_1$ | 7.2 | 8.0 | 8.4 | 11.7 | 12.8 | 14.5 | 8.5 |
| Management, administration, other (455) | *No.* | 1 | 14 | 43 | 100 | 64 | 226 | 417 |
| | $Q_3$ | | | | 20.0 | 23.0 | 22.0 | 21.0 |
| | $Q_2$ | | | 14.7 | 17.3 | 18.9 | 18.5 | 18.0 |
| | $Q_1$ | | | | 13.2 | 15.0 | 15.5 | 14.3 |
| Teaching (2059) | *No.* | 19 | 265 | 444 | 437 | 239 | 637 | 1957 |
| | $Q_3$ | | 8.9 | 10.4 | 12.3 | 13.8 | 15.0 | 12.6 |
| | $Q_2$ | | 8.2 | 9.1 | 10.6 | 11.4 | 12.4 | 10.3 |
| | $Q_1$ | | 7.5 | 8.5 | 9.2 | 9.9 | 10.3 | 8.7 |
| Total number (4793) | | 174 | 818 | 1080 | 1003 | 477 | 1152 | 4524 |
| MASTER'S DEGREE | | | | | | | | |
| Research and development (1564) | *No.* | 152 | 690 | 356 | 99 | 30 | 29 | 318 |
| | $Q_3$ | | 9.6 | 12.1 | 13.7 | | | 13.0 |
| | $Q_2$ | | 8.7 | 10.0 | 12.7 | 13.7 | 15.0 | 10.3 |
| | $Q_1$ | | 7.2 | 8.5 | 11.0 | | | 8.4 |
| Management, administration, other (240) | *No.* | 12 | 69 | 30 | 25 | 14 | 43 | 101 |
| | $Q_3$ | | | | | | | 16.0 |
| | $Q_2$ | | | | | | 13.0 | 11.4 |
| | $Q_1$ | | | | | | | 9.3 |
| Teaching (1593) | *No.* | 85 | 442 | 367 | 206 | 136 | 329 | 1197 |
| | $Q_3$ | 7.0 | 7.1 | 7.9 | 8.9 | 9.4 | 10.0 | 8.6 |
| | $Q_2$ | 6.2 | 6.5 | 7.0 | 7.8 | 8.4 | 8.7 | 7.4 |
| | $Q_1$ | 6.0 | 6.0 | 6.3 | 7.0 | 7.3 | 7.6 | 6.5 |
| Total number (3397) | | 249 | 1201 | 753 | 330 | 180 | 401 | 1616 |
| BACHELOR'S DEGREE | | | | | | | | |
| Research and development (1135) | *No.* | 114 | 623 | 160 | 45 | 10 | 18 | 196 |
| | $Q_3$ | | 8.1 | | | | | 11.0 |
| | $Q_2$ | | 7.2 | 9.3 | 11.0 | | | 8.5 |
| | $Q_1$ | | 6.4 | | | | | 7.2 |
| Management, administration, other (199) | *No.* | 18 | 69 | 26 | 18 | 8 | 20 | 71 |
| | $Q_3$ | | | | | | | |
| | $Q_2$ | | | | | | | 11.5 |
| | $Q_1$ | | | | | | | |
| Teaching (738) | *No.* | 68 | 405 | 124 | 43 | 22 | 45 | 338 |
| | $Q_3$ | | 6.3 | 7.2 | | | | 7.3 |
| | $Q_2$ | | 5.5 | 6.3 | 7.4 | | 8.5 | 6.0 |
| | $Q_1$ | | 5.0 | 5.6 | | | | 5.3 |
| Total number (2072) | | 200 | 1097 | 310 | 106 | 40 | 83 | 605 |

or astronomers (excluding all others) and reported their salaries — about 17 000. Table 5 gives comparable figures for all scientists.

However, traditionally National Register data have been computed on the basis of indicated area of highest competence, which is selected from a list of specialties. For reasons of comparability of data, these groupings have been retained for all 1964 data compilations other than the five tables just mentioned. On this specialty basis we have a different physics-astronomy population of approximately 20 000 full-time-employed reporting salary. The lines here are less clearly drawn; the physicist or astronomer indicating that his primary interest is in atmospheric thermodynamics would be counted as a meteorologist; a physicist who showed that he was a computer specialist would be included with the mathematicians; one concerned with the physical properties of materials would be grouped with geologists. On the other hand, a chemist who selected spectroscopy or rheology as representative of his highest competence would be counted as a member of the physics community.

It is apparent that although we can answer questions about how many people are specialists in certain areas of science, there is as yet no perfect way of counting heads. Bureau of the Census figures, which are solicited from households, Bureau of Labor Statistics, which are gleaned from employers, and National Register figures, which come directly from the individual scientists, differ greatly. A study that has been proposed would try to discover whether there is a predictable variance and what, if anything, can be done to bring different figures into closer agreement.

Because National Register data are derived directly from the science community, they are recognized to be the best source of information on the nation's scientific resources and have been widely used especially by government bodies.

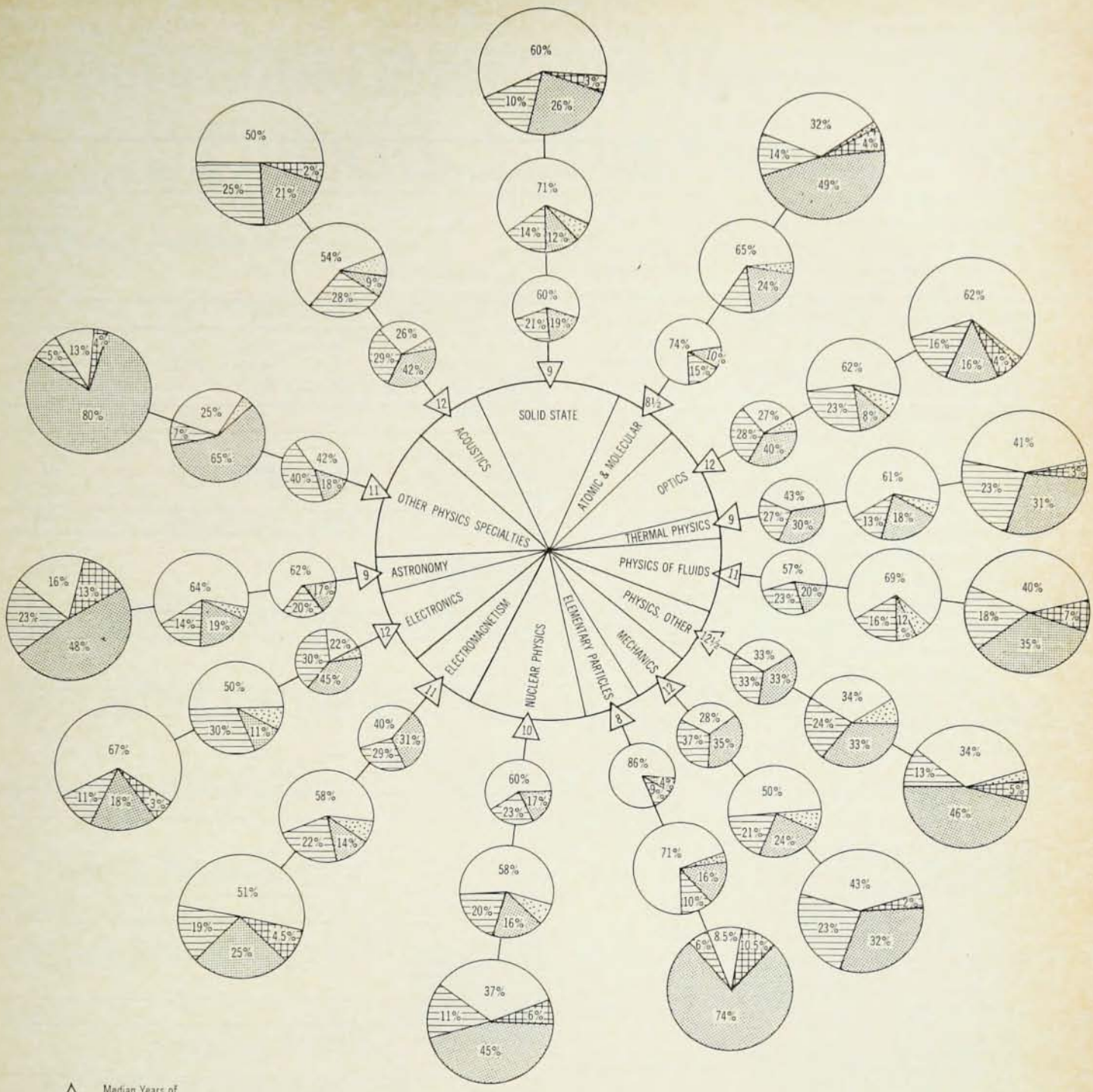
### *Work and age*

1964 answers to the questionnaire show that research, development, or design is the first work activity for 60

**Fig. 2. Distribution of physics-astronomy registrants among different kinds of physics. Also shown are median salaries and other quantities as they apply in subfields.**

## Table 3. Government Salaries by Job and Experience

| *Years of experience →* / *Work activity* | | *1* | *2–4* | *5–9* | *10–14* | *15–19* | *> 20* | *Total reporting salary* |
|---|---|---|---|---|---|---|---|---|
| DOCTORATE DEGREE | | | | | | | | |
| | *No.* | 18 | 87 | 167 | 141 | 53 | 92 | 541 |
| Research and development (562) | $Q_3$ | | 11.8 | 13.6 | 15.0 | 16.2 | 17.2 | 15.0 |
| | $Q_2$ | | 10.4 | 12.1 | 14.1 | 14.0 | 17.0 | 12.6 |
| | $Q_1$ | | 10.0 | 10.6 | 12.5 | 12.8 | 15.7 | 11.4 |
| Management or administration (238) | *No.* | 1 | 5 | 12 | 39 | 38 | 139 | 237 |
| | $Q_3$ | | | | | | 19.0 | 18.5 |
| | $Q_2$ | | | | 16.7 | 17.2 | 18.0 | 17.7 |
| | $Q_1$ | | | | | | 17.2 | 16.2 |
| Other (47) | *No.* | | 1 | 4 | 12 | 6 | 23 | 43 |
| | $Q_3$ | | | | | | | |
| | $Q_2$ | | | | | | | 17.0 |
| | $Q_1$ | | | | | | | |
| Total number (847) | | 19 | 93 | 183 | 192 | 97 | 254 | 821 |
| MASTER'S DEGREE | | | | | | | | |
| | *No.* | 19 | 144 | 161 | 135 | 59 | 74 | 565 |
| Research and development (600) | $Q_3$ | | 9.3 | 11.0 | 12.9 | 14.5 | 15.0 | 12.5 |
| | $Q_2$ | | 8.6 | 10.3 | 12.1 | 13.0 | 14.0 | 10.5 |
| | $Q_1$ | | 7.9 | 9.5 | 11.0 | 12.0 | 12.5 | 9.0 |
| Management or administration (190) | *No.* | | 15 | 20 | 44 | 26 | 84 | 188 |
| | $Q_3$ | | | | | | 17.2 | 16.5 |
| | $Q_2$ | | | | 14.1 | 15.6 | 16.3 | 14.5 |
| | $Q_1$ | | | | | | 14.0 | 12.5 |
| Other (71) | *No.* | 3 | 19 | 10 | 7 | 10 | 18 | 62 |
| | $Q_3$ | | | | | | | 14.5 |
| | $Q_2$ | | | | | | | 12.1 |
| | $Q_1$ | | | | | | | 8.6 |
| Total number (861) | | 22 | 178 | 191 | 186 | 95 | 176 | 815 |
| BACHELOR'S DEGREE | | | | | | | | |
| | *No.* | 28 | 319 | 238 | 125 | 47 | 57 | 789 |
| Research and development (822) | $Q_3$ | | 9.0 | 10.6 | 12.5 | | 14.5 | 11.0 |
| | $Q_2$ | 7.0 | 8.0 | 10.0 | 11.7 | 12.5 | 14.0 | 9.5 |
| | $Q_1$ | | 7.6 | 9.3 | 10.6 | | 12.0 | 8.0 |
| Management or administration (267) | *No.* | 1 | 17 | 65 | 64 | 42 | 74 | 261 |
| | $Q_3$ | | | 11.7 | 15.0 | | 17.7 | 15.7 |
| | $Q_2$ | | | 10.3 | 14.0 | 14.0 | 16.7 | 13.6 |
| | $Q_1$ | | | 10.0 | 12.4 | | 15.0 | 10.6 |
| Other (107) | *No.* | 4 | 37 | 30 | 22 | 2 | 7 | 93 |
| | $Q_3$ | | | | | | | 12.1 |
| | $Q_2$ | | 8.0 | 10.3 | | | | 10.0 |
| | $Q_1$ | | | | | | | 8.0 |
| Total number (1196) | | 33 | 373 | 333 | 211 | 91 | 138 | 1143 |




| SUBFIELD | NUMBER | FRACTION % | MEDIAN SALARY in Thousands of Dollars |
|---|---|---|---|
| ACOUSTICS | 1183 | 5.84 | 12.0 |
| ASTRONOMY | 615 | 3.04 | 11.5 |
| ATOMIC & MOLECULAR PHYSICS | 1213 | 5.99 | 11.7 |
| ELECTROMAGNETISM | 1402 | 6.92 | 12.3 |
| ELECTRONICS | 1479 | 7.30 | 12.5 |
| ELEMENTARY PARTICLES | 832 | 4.11 | 10.9 |
| MECHANICS | 788 | 3.89 | 11.5 |
| NUCLEAR PHYSICS | 2356 | 11.64 | 12.2 |
| OPTICS | 2005 | 9.90 | 12.5 |
| OTHER PHYSICS SPECIALTIES (incl. Theoretical) | 2641 | 13.05 | 8.9 |
| PHYSICS OF FLUIDS | 1448 | 7.15 | 13.3 |
| SOLID STATE PHYSICS | 3084 | 15.23 | 12.9 |
| THERMAL PHYSICS | 480 | 2.37 | 11.0 |
| PHYSICS, other | 723 | 3.57 | 10.8 |
| | 20249 | 100. | |

percent of the full-time-employed physicists and astronomers. For 20 percent it is teaching; for 16 percent, administration. Figure 1 shows how these primary responsibilities change with age of the respondents.

Almost a third of the 1964 registrants indicated that their area of greatest competence was in nuclear physics (including elementary particles) or solid state physics. Figure 2 shows the distribution of the registrants among subfields of physics and the median salaries and other variables in the subfields.

For all scientists registered in 1964, the median age was 38 years. For the total physics-astronomy group (27 000) it was 34, and for full-time-employed members of the group it was 36.5. Almost 80 percent of the total group were between 25 and 44. Almost half of the full-time group had a doctorate; more than a quarter indicated the master's as their highest degree. Of the PhD's more than half worked for educational institutions and almost a third for industry. Figure 3 shows the distribution of degrees in different age groups and also the age distribution of all physicists and astronomers.

856 or 3.2 percent of the total physics-astronomy registrants were women, but only 2.2 of the full-time-employed group were women. About one third of the women had earned a doctorate; slightly more than a third had a master's as their highest degree. Inadequate numbers precluded salary analyses for women except for those with

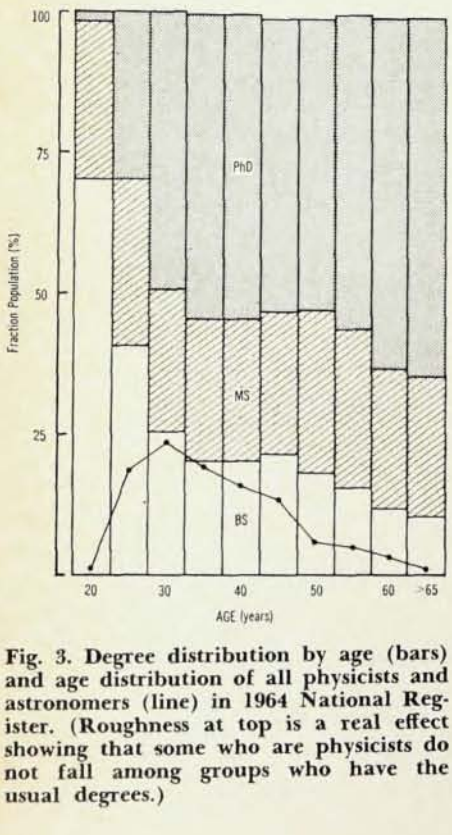



**Fig. 3. Degree distribution by age (bars) and age distribution of all physicists and astronomers (line) in 1964 National Register. (Roughness at top is a real effect showing that some who are physicists do not fall among groups who have the usual degrees.)**

**Table 4. Nonprofit-Organization Salaries by Job and Experience**

| *Years of experience →* / *Work activity* | | *1* | *2–4* | *5–9* | *10–14* | *15–19* | *> 20* | *Total reporting salary* |
|---|---|---|---|---|---|---|---|---|
| DOCTORATE DEGREE | | | | | | | | |
| | *No.* | 18 | 87 | 111 | 84 | 39 | 51 | 374 |
| Research and development (395) | $Q_3$ | | 12.6 | 14.5 | 18.0 | | 22.2 | 16.0 |
| | $Q_2$ | | 10.0 | 12.9 | 14.4 | 17.8 | 19.0 | 13.2 |
| | $Q_1$ | | 9.0 | 11.4 | 12.7 | | 16.0 | 10.8 |
| Management or administration (119) | *No.* | 1 | | 11 | 27 | 23 | 56 | 108 |
| | $Q_3$ | | | | | | 27.0 | 25.0 |
| | $Q_2$ | | | | 18.0 | | 24.0 | 21.0 |
| | $Q_1$ | | | | | | 20.0 | 17.3 |
| Other (42) | *No.* | 1 | 1 | 5 | 14 | 6 | 15 | 41 |
| | $Q_3$ | | | | | | | |
| | $Q_2$ | | | | | | | 18.0 |
| | $Q_1$ | | | | | | | |
| Total number (556) | | 20 | 88 | 127 | 125 | 68 | 122 | 523 |
| MASTER'S DEGREE | | | | | | | | |
| | *No.* | 9 | 40 | 34 | 27 | 13 | 13 | 113 |
| Research and development (141) | $Q_3$ | | | | | | | 13.2 |
| | $Q_2$ | | 8.7 | 10.0 | 13.5 | | | 10.8 |
| | $Q_1$ | | | | | | | 8.7 |
| Management or administration (46) | *No.* | | 1 | 5 | 15 | 9 | 15 | 44 |
| | $Q_3$ | | | | | | | |
| | $Q_2$ | | | | | | | 17.5 |
| | $Q_1$ | | | | | | | |
| Other (28) | *No.* | 5 | 3 | 7 | 9 | 2 | 2 | 22 |
| | $Q_3$ | | | | | | | |
| | $Q_2$ | | | | | | | |
| | $Q_1$ | | | | | | | |
| Total number (215) | | 14 | 44 | 46 | 51 | 24 | 30 | 179 |
| BACHELOR'S DEGREE | | | | | | | | |
| | *No.* | 6 | 39 | 28 | 18 | 9 | 9 | 97 |
| Research and development (113) | $Q_3$ | | | | | | | 13.0 |
| | $Q_2$ | | 7.4 | 10.2 | | | | 10.0 |
| | $Q_1$ | | | | | | | 7.6 |
| Management or administration (28) | *No.* | | 2 | 7 | 9 | 3 | 7 | 25 |
| | $Q_3$ | | | | | | | |
| | $Q_2$ | | | | | | | 13.7 |
| | $Q_1$ | | | | | | | |
| Other (20) | *No.* | 1 | 6 | 1 | 4 | 3 | 4 | 17 |
| | $Q_3$ | | | | | | | |
| | $Q_2$ | | | | | | | |
| | $Q_1$ | | | | | | | |
| Total number (161) | | 7 | 47 | 36 | 31 | 15 | 20 | 139 |

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five to nine years of job experience. Figure 4 compares salary figures for men and women with similar educational backgrounds and years of work experience.

### *Employer and salary*

Employers of the full-time physicists and astronomers fall mainly into four categories: industry (employing 42 percent of the group), educational institutions—including government-sponsored research installations (39 percent), the federal government (14), and nonprofit research organizations (4.5).

When comparing salaries for teaching with other activities, weight must be given to the fact that most teaching salaries are based on a nine-month working period, but others are based on twelve months. In both 1962 and 1964 the median for calendar-year academic salaries was $2000 higher than for academic-year salaries. Table 6 compares college and university salaries as functions of rank and salary base.

The National Science Foundation has planned mobility studies based on the ten years of available register data.

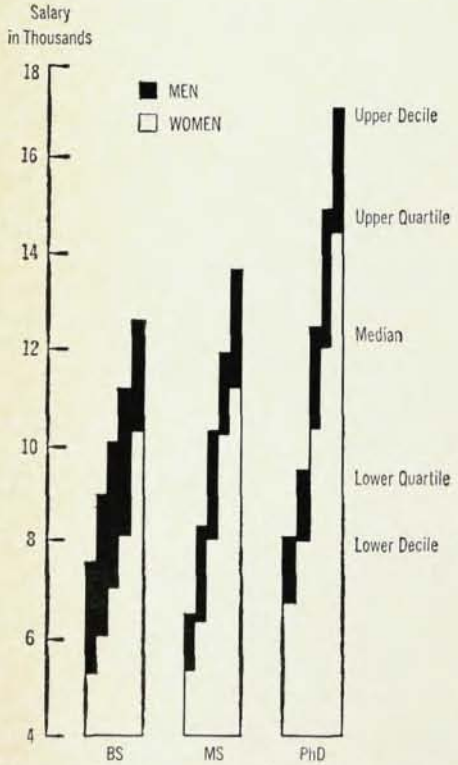


**Fig. 4. Men are paid more than women. Bars compare quartiles, bottom and top deciles for scientists with similar educational backgrounds and years of experience.**

These longitudinal analyses will produce some interesting patterns to demonstrate the effects or lack of effects of such factors as government spending, strong educational facilities, financial remuneration, etc., on the mobility—geographical and otherwise—of scientists. We anticipate that these will provide trend studies of a nature and scope never before possible and will shape the register into an even better tool.

**Table 5. Median 1964 Salaries for All Sciences by Job and Experience**

| *Years of experience →* | *1* | *2–4* | *5–9* | *10–14* | *15–19* | *> 20* | *Total group* |
|---|---|---|---|---|---|---|---|
| INDUSTRY | | | | | | | |
| PhD—R & D | 11.3 | 12.0 | 13.1 | 14.4 | 15.1 | 16.0 | 13.4 |
| M or A | | 12.6 | 15.0 | 17.0 | 18.5 | 20.0 | 18.0 |
| M.S.—R & D | 8.4 | 9.1 | 10.5 | 12.0 | 13.0 | 13.2 | 11.0 |
| M or A | | 9.5 | 12.0 | 14.0 | 15.9 | 18.0 | 15.0 |
| B.S.—R & D | 7.2 | 8.0 | 9.6 | 10.8 | 11.5 | 12.0 | 9.7 |
| M or A | 7.3 | 8.2 | 10.8 | 12.6 | 14.4 | 16.5 | 14.0 |
| EDUCATIONAL INSTITUTIONS | | | | | | | |
| PhD—R & D | 7.5 | 8.5 | 10.0 | 12.0 | 13.0 | 15.0 | 10.6 |
| M or A | | 9.5 | 11.0 | 13.1 | 14.8 | 16.0 | 14.8 |
| Teaching | 7.5 | 8.0 | 8.7 | 10.0 | 11.0 | 12.0 | 10.0 |
| M.S.—R & D | 6.5 | 7.2 | 8.4 | 9.5 | 10.0 | 10.3 | 8.5 |
| M or A | | 7.0 | 8.8 | 10.3 | 11.1 | 12.0 | 10.4 |
| Teaching | 6.3 | 6.3 | 7.0 | 7.8 | 8.3 | 8.5 | 7.3 |
| B.S.—R & D | 6.0 | 6.3 | 8.3 | 10.0 | 10.0 | 11.6 | 8.0 |
| M or A | | 6.8 | 9.6 | 10.8 | 11.5 | 12.6 | 10.8 |
| Teaching | 5.2 | 5.3 | 6.2 | 7.0 | 7.3 | 8.0 | 6.0 |
| FEDERAL GOVERNMENT | | | | | | | |
| PhD—R & D | 8.5 | 10.0 | 10.7 | 12.2 | 12.8 | 14.1 | 12.0 |
| M or A | | 11.5 | 12.0 | 14.0 | 15.0 | 16.7 | 15.0 |
| M.S.—R & D | 7.0 | 8.0 | 9.1 | 10.6 | 11.7 | 12.1 | 9.9 |
| M or A | | 7.0 | 9.0 | 11.2 | 12.5 | 14.1 | 12.1 |
| B.S.—R & D | 7.0 | 7.9 | 9.5 | 10.4 | 11.0 | 12.0 | 9.5 |
| M or A | 5.8 | 6.2 | 8.3 | 10.2 | 11.3 | 13.3 | 10.4 |
| NONPROFIT ORGANIZATIONS | | | | | | | |
| PhD—R & D | 8.5 | 10.0 | 11.7 | 13.8 | 15.0 | 15.8 | 12.5 |
| M or A | | | 13.0 | 16.0 | 18.0 | 19.5 | 17.0 |
| M.S.—R & D | 7.3 | 8.5 | 10.2 | 12.0 | 12.2 | 13.0 | 8.4 |
| M or A | | | 10.9 | 13.5 | 15.0 | 17.5 | 14.0 |
| B.S.—R & D | 5.4 | 7.0 | 9.4 | 11.3 | 11.8 | 12.0 | 9.2 |
| M or A | | | 12.0 | 13.2 | 14.1 | 16.0 | 14.1 |

**Table 6. 1964 Salaries for Teaching Physicists**

| *Salary base* | *All ranks* | *Prof.* | *Assoc. prof.* | *Asst. prof.* | *Instr.* | *Lect.* | *Res. assoc.* | *No rpt. of rank* |
|---|---|---|---|---|---|---|---|---|
| All | 9.7 | 13.5 | 10.0 | 8.2 | 6.5 | 9.6 | 8.4 | 9.8 |
| Aca. yr. | 9.1 | 13.0 | 9.7 | 8.0 | 6.5 | 7.5 | | 9.5 |
| Cal. yr. | 11.0 | 16.0 | 12.2 | 9.9 | 7.4 | 10.0 | 8.7 | 10.0 |
| No rpt. of base | 10.7 | 14.6 | 10.3 | 8.4 | | | | 11.0 |