

***SOCIETY MEMBERSHIP PROFILE:
2004 REPORT***

U.S. Residents Only

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The AIP Membership Sample Survey is the largest survey conducted by AIP's Statistical Research Center (SRC). More than 21,600 individuals, approximately one-fourth of the U.S. members of AIP's Member Societies, were selected on the basis of a stratified random sample and asked to report their salary and employment data as of March 2004. Nearly 12,300 responded after three e-mail requests for an overall response rate of 57%. The data represent responses from members of the American Physical Society, Optical Society of America, Acoustical Society of America, The Society of Rheology, American Association of Physics Teachers, American Crystallographic Association, American Astronomical Society, American Association of Physicists in Medicine, AVS Science and Technology Society, and American Geophysical Union. Within the research portion of its mission, the SRC collects, analyzes, and disseminates data on education and employment in physics and related fields.

Table 1. Society membership figures, 1986 to 2004.

| Year | APS | OSA | ASA | SoR | AAPT | ACA | AAS | AAPM | AVS | AGU |
|-------------|------------|------------|------------|------------|-------------|------------|------------|-------------|------------|------------|
| 2004 | 43297 | 14414 | 6977 | 1777 | 10426 | 2002 | 6803 | 4741 | 5303 | 37780 |
| 2003 | 42830 | 13291 | 7231 | 1672 | 10395 | 2005 | 6438 | 4826 | 4932 | 33401 |
| 2002 | 42007 | 13688 | 6629 | 1610 | 10041 | 2061 | 6049 | 4425 | 5239 | 34043 |
| 2001 | 41570 | 14441 | 6988 | 1633 | 10176 | 2100 | 6429 | 4590 | 5148 | 31169 |
| 2000 | 42622 | 12528 | 7304 | 1619 | 10476 | 2100 | 6270 | 4535 | 5397 | 32590 |
| 1999 | 41477 | 11746 | 7014 | 1616 | 11352 | 2256 | 6265 | 4412 | 5515 | 32000 |
| 1998 | 40767 | 11620 | 7215 | 1821 | 11633 | 2299 | 6092 | 4334 | 5960 | 31772 |
| 1997 | 41500 | 11491 | 7058 | 1657 | 11573 | 2247 | 6170 | 4281 | 5884 | 30468 |
| 1996 | 41000 | 10906 | 7143 | 1506 | 11343 | 2272 | 6101 | 4290 | 5576 | 29989 |
| 1995 | 41670 | 11522 | 7080 | 1416 | 11220 | 2100 | 6355 | 4155 | 5602 | 28855 |
| 1994 | 43173 | 11377 | 7108 | 1333 | 11176 | 2100 | 6380 | 3768 | 5375 | 28751 |
| 1993 | 43710 | 12040 | 6609 | 1269 | 11178 | 2015 | 6280 | 3691 | 5547 | 28061 |
| 1992 | 43207 | 12045 | 6918 | 1204 | 10853 | 2135 | 6000 | 3382 | 5600 | 27013 |
| 1991 | 41645 | 11405 | 6860 | 1110 | 10863 | 2010 | 5610 | 3044 | 5483 | 25244 |
| 1990 | 41753 | 10350 | 6650 | 1061 | 10664 | 2086 | 5346 | 2975 | 5482 | 24706 |
| 1989 | 41251 | 10440 | 6350 | 1027 | 10267 | 2112 | 5068 | 2843 | 5956 | 22586 |
| 1988 | 39396 | 10344 | 6180 | 1063 | 10101 | 2011 | 4729 | 2686 | 5650 | 21182 |
| 1987 | 39767 | 9763 | 6050 | 1177 | 10411 | 1830 | 4517 | 2524 | 5750 | 19573 |
| 1986 | 36830 | 9359 | 5880 | 1156 | 10361 | 1700 | 4349 | 2434 | 5766 | 17272 |

Source: Handbook for AIP Member Society Officers 1986 to 2004

APS = American Physical Society

OSA = Optical Society of America

ASA = Acoustical Society of America

SoR = Society of Rheology

AAPT = American Association of Physics Teachers

ACA = American Crystallographic Association

AAS = American Astronomical Society

AAPM = American Association of Physicists in Medicine

AVS = AVS – The Science & Technology Society

AGU = American Geophysical Union

Table 2. Society cross-membership (U.S. members only), 2004. ^(a)

| | APS % | OSA % | ASA % | SoR % | AAPT % | ACA % | AAS % | AAPM % ^(b) | AVS % | AGU % |
|---------------------|----------|----------|----------|----------|-----------|----------|----------|--------------------------|----------|----------|
| APS | 78 | 22 | 5 | 20 | 27 | 10 | 16 | 5 | 22 | 4 |
| OSA | 6 | 73 | 1 | 1 | 2 | 0 | 1 | 0 | 3 | 1 |
| ASA | 1 | 1 | 90 | 1 | 1 | - | 0 | 1 | - | 1 |
| SoR | 1 | 0 | 0 | 80 | - | 1 | - | - | 0 | - |
| AAPT | 8 | 2 | 2 | - | 69 | 1 | 4 | 1 | 2 | 1 |
| ACA | 1 | 0 | - | 1 | 0 | 88 | - | - | - | 0 |
| AAS | 3 | 1 | 0 | - | 3 | - | 72 | - | 0 | 4 |
| AAPM ^(b) | 1 | 0 | 1 | - | 0 | - | - | 94 | 0 | - |
| AVS | 3 | 2 | - | 0 | 1 | - | 0 | 0 | 75 | 0 |
| AGU | 3 | 3 | 5 | - | 2 | 1 | 13 | - | 0 | 91 |
| Total respondents | 3360 | 865 | 435 | 107 | 1085 | 146 | 734 | 447 | 395 | 2175 |

^(a) Percents should be read as columns not as rows (e.g., 8% of APS members also belong to AAPT, while 27% of AAPT members also belong to the APS. Numbers along the diagonal (upper left to lower right) represent the percent of members who belong to only that society (e.g. 75% of AVS members belong to AVS and none of the other nine societies). Columns add to more than 100% because some members belong to 3 or more of the 10 AIP Member Societies. Numbers are derived from a sample of U.S. resident members in each society. Retired and student members are excluded.

^(b) 2002 data.

Source: AIP Member Society Survey: 2004 Society Profiles, by Raymond Y. Chu

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| Table 3. Professional self-identification for each society (U.S. members only), 2004. ^(a) | | | | | | | | | | | |
|---|-------------|------------|------------|------------|-------------------|------------|------------|------------------|------------|-------------|--------------------|
| | APS | OSA | ASA | SoR | AAPT | ACA | AAS | AAPM | AVS | AGU | All ^(c) |
| | % | % | % | % | % | % | % | % ^(b) | % | % | % |
| Physicist | 62 | 40 | 6 | 7 | 47 | 5 | 6 | 91 | 22 | 3 | 35 |
| Engineer | 11 | 39 | 25 | 45 | 4 | 3 | 3 | 3 | 30 | 6 | 12 |
| Astronomer | 4 | 1 | 0 | - | 3 | 0 | 81 | - | 0 | 5 | 7 |
| Geologist | 0 | 0 | 0 | - | 1 | - | 0 | - | - | 20 | 6 |
| Atmospheric scientist | 1 | 3 | 0 | - | 1 | - | 2 | - | - | 17 | 5 |
| Chemist | 5 | 4 | - | 11 | 2 | 15 | 0 | 1 | 15 | 8 | 5 |
| Material scientist | 10 | 4 | 0 | 26 | 2 | 11 | 0 | - | 26 | 1 | 5 |
| Geophysicist | 0 | 0 | 2 | - | 1 | - | 0 | - | - | 13 | 4 |
| Ocean scientist | 0 | 0 | 4 | - | 0 | - | 0 | - | - | 12 | 4 |
| Hydrologist | 0 | - | - | - | - | - | - | - | - | 8 | 2 |
| Life scientist | 1 | 2 | 15 | 1 | 1 | 12 | - | - | 1 | 2 | 2 |
| Acoustician | 0 | 0 | 33 | - | 0 | - | - | - | - | 0 | 2 |
| Crystallographer | 0 | - | - | - | - | 48 | - | - | 0 | 0 | 1 |
| Other scientist | 3 | 3 | 10 | 10 | 4 | 4 | 2 | 4 | 1 | 2 | 3 |
| Non-scientist | 3 | 4 | 5 | - | 34 ^(d) | 2 | 6 | 1 | 5 | 3 | 7 |
| Total respondents | 3360 | 865 | 435 | 107 | 1085 | 146 | 734 | 447 | 395 | 2175 | 9799 |

^(a) Excludes full-time students and retired members.

^(b) 2002 data.

^(c) "All" represents the total unduplicated membership of all 10 societies, that is, each person who belongs to more than one society is only counted once.

^(d) Many AAPT members identify themselves as educators rather than as discipline-specific scientists.

Source: AIP Member Society Survey: 2004 Society Profiles, by Raymond Y. Chu

Table 4. Employment sector for each society (U.S. members only), 2004. ^(a)

| | APS % | OSA % | ASA % | SoR % | AAPT % | ACA % | AAS % | AAPM % ^(b) | AVS % | AGU % | All ^(c) % |
|--------------------------------|----------|----------|----------|----------|-----------|----------|----------|--------------------------|----------|----------|-------------------------|
| ACADEMIC | | | | | | | | | | | |
| University | 40 | 25 | 26 | 31 | 24 | 39 | 44 | 3 | 24 | 36 | 33 |
| 4-Year college | 5 | 2 | 3 | - | 15 | 2 | 5 | 0 | 1 | 3 | 4 |
| 2-Year college | 1 | 0 | - | - | 10 | - | 2 | 0 | 1 | 1 | 2 |
| Secondary school | 1 | 0 | 0 | - | 43 | - | 1 | - | - | 1 | 5 |
| Medical school | 1 | 1 | 7 | 2 | 0 | 10 | 0 | 26 | - | - | 3 |
| UARI ^(d) | 3 | 3 | 6 | - | 0 | 4 | 12 | 0 | 1 | 7 | 4 |
| NON-ACADEMIC | | | | | | | | | | | |
| Industry and self-employed | | | | | | | | | | | |
| | 21 | 50 | 39 | 55 | 4 | 27 | 9 | 19 | 54 | 16 | 23 |
| Government | 8 | 9 | 10 | 4 | 2 | 5 | 11 | 4 | 6 | 20 | 10 |
| FFR&DC ^(d) | 18 | 8 | 3 | 5 | 1 | 10 | 12 | 1 | 11 | 8 | 10 |
| Hospitals and medical services | 0 | 1 | 2 | - | 0 | 1 | 0 | 46 | - | 0 | 3 |
| Non-profit | 1 | 1 | 3 | 1 | 1 | 2 | 4 | 1 | 2 | 5 | 2 |
| Other | 1 | 0 | 1 | 2 | 0 | - | 0 | - | - | 3 | 1 |
| Total respondents | 3276 | 837 | 421 | 106 | 1071 | 145 | 723 | 447 | 383 | 2106 | 9591 |

^(a) Excludes full-time students and retired members.

^(b) 2002 data.

^(c) "All" represents the total unduplicated membership of all 10 societies.

^(d) UARI = University-affiliated research institutes and university-affiliated observatories
FFR&DC = Federally-Funded Research and Development Center

Source: AIP Member Society Survey: 2004 Society Profiles, by Raymond Y. Chu

Table 5. Level of highest degree for each society (U.S. members only), 2004. ^(a)

| | APS | OSA | ASA | SoR | AAPT | ACA | AAS | AAPM | AVS | AGU | All ^(c) |
|-------------------|------|-----|-----|-----|------|-----|-----|------------------|-----|------|--------------------|
| | % | % | % | % | % | % | % | % ^(b) | % | % | % |
| Doctorate | 93 | 75 | 67 | 83 | 48 | 91 | 89 | 50 | 72 | 79 | 77 |
| Masters | 5 | 15 | 19 | 10 | 39 | 5 | 6 | 47 | 12 | 17 | 17 |
| Bachelors | 2 | 8 | 12 | 7 | 12 | 3 | 5 | 2 | 13 | 4 | 5 |
| Associates | 0 | 1 | 1 | - | 0 | - | 0 | 0 | 3 | 0 | 0 |
| Professional | 0 | 1 | 1 | - | 1 | 1 | 0 | 1 | 0 | 0 | 1 |
| Total respondents | 3360 | 865 | 435 | 107 | 1085 | 146 | 734 | 447 | 395 | 2175 | 9799 |

^(a) Excludes full-time students and retired members.

^(b) 2002 data.

^(c) "All" represents the total unduplicated membership of all 10 societies.

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Table 6. Primary work activity for each society (U.S. members only), 2004. ^(a)

| | APS | OSA | ASA | SoR | AAPT | ACA | AAS | AAPM | AVS | AGU | All ^(c) |
|-------------------------------------|------|-----|-----|-----|------|-----|-----|------------------|-----|------|--------------------|
| | % | % | % | % | % | % | % | % ^(b) | % | % | % |
| Basic research | 36 | 16 | 22 | 16 | 4 | 52 | 44 | 2 | 17 | 35 | 28 |
| Applied research-long range | 13 | 19 | 15 | 17 | 1 | 11 | 5 | 5 | 16 | 12 | 11 |
| Applied research-short range | 6 | 14 | 9 | 28 | 1 | 8 | 3 | 5 | 12 | 10 | 7 |
| Engineering, design, or development | 7 | 20 | 12 | 7 | 1 | 3 | 5 | 3 | 26 | 4 | 8 |
| Teaching | 19 | 10 | 13 | 14 | 80 | 9 | 20 | 2 | 8 | 15 | 21 |
| Clinical or patient care | 0 | 0 | 2 | - | 0 | - | - | 60 | 0 | - | 5 |
| Administration | 10 | 13 | 9 | 11 | 7 | 8 | 10 | 8 | 12 | 9 | 9 |
| Consulting | 2 | 4 | 15 | 1 | 1 | 1 | 2 | 8 | 1 | 6 | 4 |
| Other | 6 | 4 | 4 | 6 | 4 | 9 | 10 | 7 | 8 | 8 | 7 |
| Total respondents | 3360 | 865 | 435 | 107 | 1085 | 146 | 734 | 447 | 395 | 2175 | 9799 |

^(a) Excludes full-time students and retired members.

^(b) 2002 data.

^(c) "All" represents the total unduplicated membership of all 10 societies.

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