



THE US AND CHINESE OLYMPIAD teams pose with their medals.

piad. Daniyar Nurgaliev of Russia beat out 305 other students to earn the highest score in this year's competition.

For the second year running, the Chinese team had the top total overall, winning four gold medals and one silver medal. The Russian, US, and Indian teams came in next—each won three gold and two silver medals.

The US golds were garnered by Andrew Lutomirski of Los Angeles; Willie Wong of Short Hills, New Jersey; and Brian Beck of Beachwood, Ohio. Daniel Peng of Colts Neck, New Jersey, and Vladimir Novakovski of Springfield, Virginia, won silver medals. The American Institute of Physics and the American Association of Physics Teachers were the primary sponsors of the US team.

Students competed in two five-hour exams during which, for example, they determined the gravitational constant with a rotating container of glycerin and a laser. This experimental task proved so popular, says organizer Sinan Bilikmen, that 30 countries' representatives bought the equipment for \$100 a set.

But that extra cash didn't do much to offset the cost of the ever-growing Olympiad. Thanks to an ailing Turkish economy, the voluntary contributions from participating countries stretched to cover almost half of the low \$450 000 tab for the competition. The Turkish government and a smattering of private sponsors paid for the rest.

Students took time out together to visit, among other things, an archaeological site, an old Roman theater, and Turkish bazaars. As Waldemar Gorzkowski, president of the International Physics Olympiads organization, said at this year's opening ceremony, "Those who make friends for life are the winners."

The 2002 Physics Olympiad will be held in Jakarta, Indonesia, in July.

LYNLEY HARGREAVES

Physicists' Pay Is Up

Salary increases for US physicists are well above inflation rates, according to the latest salary survey by the American Institute of Physics. The study, which looked at the incomes of physicists who belong to any of AIP's 10 member societies, found salaries had increased about 11% since 1998. PhD physicists earned a median salary of \$78 000 last year, and those with master's and bachelor's degrees received median salaries of \$63 800 and \$60 000, respectively.

Not all PhD physicists got pay boosts, however. The median salary of those at four-year colleges, who mostly work on 9- or 10-month contracts, was \$50 000 (see graph), essentially unchanged since 1998. Physicists working for federally funded R&D centers netted a \$12 800, or 15%, increase over 1998.

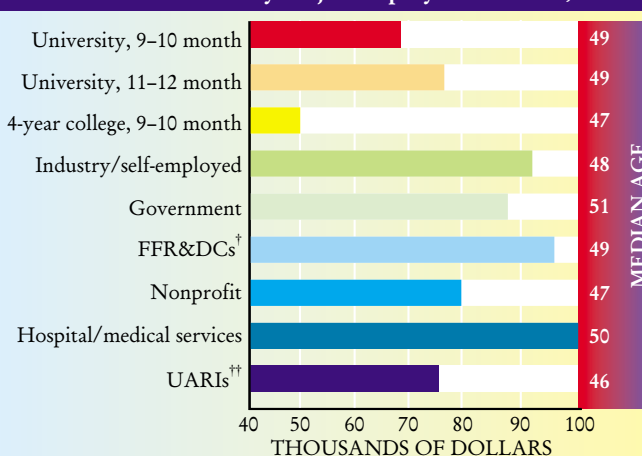
The graph doesn't show total income, however, because more than a third of the

PhD members who work full-time earn extra wages. Supplemental sources—usually consulting, summer research, or summer teaching—add, on average, \$11 000. Those on 9- or 10-month contracts at universities are most likely to do supplemental work, those in government, the least.

Unemployment remained under 1% for PhDs, although it's slightly higher for women, who make up 14% of employed member society membership. The salaries of men and women are comparable for full-time work, except for mid-career professors on 9- or 10-month contracts. There, surprisingly, women earn 10% more than men.

For additional salary and employment information, see *2000 Salaries: Society Membership Survey*. Single copies are \$15 and can be ordered on the Web at <https://webster.aip.org/forms.statorder.htm> or from the AIP Statistical Research Center, One Physics Ellipse, College Park, MD 20740-3842; e-mail: stats@aip.org.

Median PhD salaries by major employment sector, 2000.



† Federally funded research and development centers.

†† University-affiliated research institutes.

NEWS NOTES

Energy research report. The National Research Council, in a study released in mid-July, looked at \$22.3 billion spent by the US Department of Energy between 1978 and 2000 on energy efficiency and fossil energy research programs and asked, Was it worth it? The answer, according to the NRC, is yes, especially if more than direct economic benefits are counted.

The report, *Energy Research at DOE: Was It Worth It?*, said it is important to include "options for the future" and "knowledge benefits" when assessing the return on investment for DOE research programs. For example, the report said the feasibility of future energy technologies is better understood because of DOE research, although such research has

brought no monetary return.

In looking at "net realized economic benefits associated with the energy efficiency programs," the study said that about \$7 billion (1999 dollars) was spent over 22 years, resulting in about \$30 billion in savings. Fossil energy programs didn't fare as well, generating \$3.4 billion in return on \$6 billion spent between 1978 and 1986, and \$7.4 billion in benefits for \$4.5 billion in costs from 1986 to 2000.

Herschel telescope on view in US.

The 20-foot reflector telescope built by William Herschel in the 18th century to catalogue nebulae and star clusters is on loan to the Smithsonian Air and Space Museum in Washington, DC. The telescope, which usually resides at London's National Maritime Museum, is the centerpiece of *Explore the Universe*, a new exhibition on how our understanding of the skies has