

can serve national science interests and not just taxi wealthy tourists into space and back. A trip to suborbital space will cost a 100-kg tourist or science experiment between \$100 000 and \$200 000, says Armadillo Aerospace vice president Neil Milburn. "Our gut feeling tells us that the scientific-payload market is probably as large as, if not larger than, the market for space tourists."

Training the scientist-astronaut

Although CRuSR has no plans to fund human flight, suborbital training classes are gaining in popularity. The National Aerospace Training and Research (NASTAR) Center in Pennsylvania is offering scientists who would like to accompany their experiments into space a rundown on the physiological stresses they may encounter. In particular, NASTAR trains scientists to focus on their experiments and not be distracted by "that pretty view outside the window," says NASTAR graduate and planetary scientist Daniel Durda, who analyzes airborne observations of planetary and asteroidal occultation events at the Southwest Research Institute.

Alternatively, a researcher could hire a NASTAR-trained scientist-astronaut, says geophysicist Brian Shiro, who started the nonprofit Astronauts4Hire to recruit aspiring astronauts to run science experiments on commercial flights. "Our 17 members are a mix of established professionals and students pursuing graduate degrees in a range of science and engineering fields," says Shiro. One potential Astronauts4Hire customer may be NASTAR-trained Collicott, who says that in space he'd rather be a tourist than a scientist. "If I'm ever up there," he says, "I want to look out that window." **Jermy N. A. Matthews**

The state of physics in US high schools

More than 1.3 million students were enrolled in high-school physics courses in 2008–09, and some 37% of graduating seniors in 2009 had taken at least one physics course. That proportion has risen steadily since 1987, when it was 20%. A recent survey by the American Institute of Physics (AIP) finds that while enrollment is up, access to physics courses is unchanged: Since 1987 the proportion of students who attend a high school that offers physics has hovered in the 91–94% range; physics is more widely available in public than in private schools.

The curriculum continues to diversify, with both conceptual and advanced physics growing in popularity. In 1986–87, the roughly half million students enrolled in a standard, algebra-based physics course accounted for 80% of students taking physics in high school. Twenty-two years later, the same number took the standard class but constituted fewer than half of all students taking physics. Enrollment in advanced placement physics, for example, grew from 4% of students to 13%.

For the first time, AIP looked state-by-state at enrollment in and availability of high-school physics courses.

More details can be found in two AIP reports based on a survey of high-school physics teachers, *High School Physics Availability* and *High School Physics Courses and Enrollments*. Other recent reports by AIP's statistics group include one on textbooks used in high-school physics classes and one on the representation of Hispanic Americans at the bachelor's degree level in physics and geoscience. The reports can be viewed at <http://www.aip.org/statistics>.

Toni Feder

news notes

Astronomy for capacity building. Astronomy for the Developing World aims to harness existing activi-

ties and spark new ones in the service of research and education. Building on the success of the International Year of Astronomy 2009, the project is a collaboration between the International Astronomical Union (IAU) and South Africa, which won a competition to host the project's office, according to a 30 July announcement. The office has an annual budget of about €200 000 (\$265 000) and a charge to coordinate both fundraising and educational activities.

Under the project's umbrella, and with the help of regional hubs intended to tailor implementation to local needs, astronomers will give lectures and make extended visits to developing countries. Astronomy institutes in developing countries will be paired with counterparts in developed countries to receive long-term guidance. Astronomy-related events will be organized for children and the public.

"It's using astronomy as a tool for capacity building—raising the technological, scientific, and cultural level of a country," says Leiden University's George Miley, IAU vice president for development and education. There is enormous potential in tapping the astronomers, engineers, and teachers who are willing to volunteer in this work, he says. "The real limitation has been the lack of a coordinating office." **TF ■**

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