decisions," Reed says. The work may also prove useful for conservation efforts to reintroduce species to new areas, he adds.

The new study beats to press studies on colonial seabirds that show a similar use of public information. Thierry Boulinier and Etienne Dauchin of CNRS and co-workers have found that kittiwakes whose young were removed by researchers were less likely to leave when surrounded by successful neighbors than when surrounded by failed ones. And Thomas Bregnballe and colleagues at the National Environmental Research Institute in Rønde, Denmark, have found comparable patterns with cormorants. Says Pärt: "I'm convinced that this is a widespread phenomenon." –JAY WITHGOTT

COMPUTER SECURITY

Congress Expands Cyberfellows Program

In his 14 years at the University of Tulsa, says computer scientist Sujeet Shenoi, "I never had a student go on to work for the [U.S.] government." But this year some two dozen have promised to join the federal workforce to safeguard the nation's computing and communications infrastructure, with 30 more banging on the door. Shenoi, who sees a terrorist attack on the country's power or communications grid as a matter of "when, not if," couldn't be more pleased with his students' sudden shift in career plans: "I want them to make a difference before they make a buck."

The Oklahoma students are part of a growing network of scientists and technical experts of all ages being trained in various aspects of computer security. "It's time to be as smart about cybersecurity as we are about cyberspace," says Joseph Bordogna, deputy director of the National Science Foundation (NSF), which runs the Scholarship for Service (SFS) program (www.ehr.nsf.gov/DUE/programs/sfs). A $29 billion supplemental spending bill signed into law 2 August gives NSF an additional $19.3 million for the program, which offers 2-year full scholarships for students to earn a bachelor's or master's degree in return for at least 2 years of government service.

The scholarships are aimed at filling a years-long shortage of scientists, engineers, and policy professionals in computer security and information assurance. NSF made the first SFS awards in May 2001, averaging $2.5 million over 4 years, to the University of Tulsa and five other institutions. Last fall's terrorist attacks convinced Congress to nearly double the current year's $11.3 million budget, which in May was distributed to five more institutions. The program has also awarded more than a dozen "capacity-building" grants to universities to train faculty members at institutions breaking into the field of cybersecurity.

The intent of the 2002 supplemental funding is "to produce more professionals as quickly as possible," explains Norman Fortenberry, head of NSF's division of undergraduate education, which manages the SFS program. A partisan fight between Congress and the White House on broader homeland security issues delayed passage of the funding bill until nearly the end of the current fiscal year and the start of the new academic year. To save time, Fortenberry says NSF is likely to "ask existing grantees" if they could grow larger rather than staging a new competition. The foundation might also consider funding highly ranked proposals that didn't make the earlier cut.

Corey Schou of Idaho State University in Pocatello hopes that his school's proposal, submitted in the hope of a supplemental bill, falls in that category. "We didn't apply in 2001 because our program is already in pretty good shape," says Schou, who also chairs a national organization of university programs on computer systems security. "But the government's need for trained professionals is real. We also have a shortage of faculty trained to teach this stuff." Schou points to one student who left Idaho State this winter before completing his bachelor's degree to take a corporate job that pays $83,000 a year. "I couldn't in good conscience tell him to stick around," he confesses.

Cyberdefenders. Rick Ayers (left) and Julie Evans are graduate students in the federally funded Cyber Corps program at the University of Tulsa.

"This stuff" goes well beyond computer technology. Idaho State's program includes a heavy dollop of business management training along with technical expertise, for example. Carnegie Mellon University in Pittsburgh, another member of the 2001 class, offers public policy as one of its four tracks; it has asked NSF to support a new master's degree program in information security that will be run jointly by its computer science and public policy schools.

Shenoi, who came to the U.S. from India 20 years ago for graduate training, says he's looking for students who "want to make a career of federal service" and who see themselves "not just as scientists but also as public-minded citizens." The program, he says, is also "a way to pay back this wonderful country for everything it's done for me." –JEFFREY MERVIS

PATIENT RECORDS

Researchers Welcome Revised Privacy Rules

Greater protection of patient records doesn't have to come at the expense of research. That's the message intended for scientists in final rules announced last week by the Bush Administration (www.hhs.gov/ocr/hipaa) giving patients more control over how their records are used.

The "privacy rule" is a response to growing concerns about access to medical records by health care providers. However, many researchers were upset by a December 2000 rule issued by the Department of Health and Human Services (HHS), especially a provision that applied to using "de-identified" records without prior permission. The language would have stripped the records of so much demographic information, including ZIP codes and birth dates, that the data would no longer be usable for research.

The modified rule includes several changes suggested by researchers. One creates a new "limited data set" specifically for research, public health, and health care that retains more identifiers, including ZIP code and birthdate. Researchers must sign an agreement stating they will keep the information secure and use it only for specific purposes. In addition, the rule no longer requires separate forms for getting informed consent and authorization to use a patient's data, and it no longer sets an expiration date for using data for a particular study. "We're encouraged that they made many of the changes we proposed," says Jennifer Kulynych of the Association of American Medical Colleges (AAMC), one of 160 scientific societies and universities that complained about the earlier version (*Science*, 7 December, p. 2070).

At the same time, AAMC is worried that because HHS is requiring a very detailed, binding data use agreement for the limited data set, a health care provider may have to review each agreement and research could be delayed. "The intent was a streamlined alternative" to a waiver from an ethics re-

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