

## Private Giving

### The Dean's Musings

UF is currently gearing up for another major capital campaign, which will be officially kicked off this fall. There is every expectation that it will be as successful as the last one, in which over \$390 million was donated from UF's loyal alumni and friends. It is a great tribute to the faculty — both present and former — that our graduates remember and value their UF education so highly that they are willing to give back of themselves to the university.

Faculty are sometime unsure what happens to money raised during these high profile ventures. It may be hard for them to appreciate why more of this evident largesse doesn't show up directly in their workplace. Part of the problem may be that we do not always do a good job of showing faculty the results. More effort is put into raising the money than explaining where it goes. We should make a point of indicating the private sources for such critical items as building renovations, new computers, scholarly conferences, lecture series, professorships, and student scholarships/fellowships. As only one outstanding example, let's consider the last item.

Until the previous campaign (1986-91), UF had done little in the way of major fundraising, so it is hardly surprising that CLAS had virtually nothing in the way of scholarship or fellowship funds to distribute. In 1988, we were awarding 1 Turlington Scholarship and 2 Dean's Scholarships annually, a total of \$3,000. For the number of deserving and needy students in this huge college, 3 scholarships (and no graduate fellowships) was totally unacceptable, so we targeted this area

## Statistics Help Fight Children's Cancer

They're fighting the war against children's cancer but instead of drugs and surgery, they arm themselves with numbers and data. As members of the statistical office for the Pediatric Oncology Group (POG), statisticians collect data on patients, place them in study groups according to their diagnoses and analyze the results. From the results, these "number crunchers" are able to determine which treatments are effective, which ones aren't and which ones require further study, thus improving the survival rate for many pediatric cancer victims.

"Our direct role is to help design the trials for treatment," said Jonathan Shuster, professor of statistics and co-principal investigator. "We even help develop the research questions being asked and advance the methods to analyze clinical trials. We have a good record of bringing new methods into the real world."

The University of Florida was selected as the site for the POG statistical office from a national competition in 1979. Since 1980, the annual accrual to therapeutic studies has increased from almost 1,100 to more than 2,000. Patients receive treatment from any one of POG's 127 international member institutions — including St. Jude Hospital for Children, Johns Hopkins Hospital, Stanford and UF — while the statistical office manages the data on about 80 open studies and 200 other closed studies. The POG is funded by the National Cancer Institute, and its group headquarters is at Northwestern University in Chicago.

"There are about 10,000 cases of

children's cancer diagnosed in the U.S. each year," Shuster said. "Virtually every medical center that is involved with childhood cancer is an



*Jon Shuster is co-principal investigator of the statistical office for the Pediatric Oncology Group (POG).*

active participant in either POG or its "sister organization," Children's Cancer Group (CCG)."

A recent benefit of the POG's research is the elimination of radiation treatment for one particular form of cancer. Once thought to be a necessary evil, studies performed and analyzed by the POG revealed that radiation causes more harm than good in curing "limited stage non-Hodgkins lymphoma."

"We did a randomized study subtracting radiation and had over 85% survival without it," he said. "So radiation is no longer prescribed for these patients although it was the

This month's focus: Department of Statistics

# Around the College

## DEPARTMENTS

### AFRICAN & ASIAN L & L

Chauncey Chu presented a paper at the Fifth International Symposium on Chinese Languages and Linguistics in Taipei, Taiwan, this past December.

### ENGLISH

Gregory Ulmer was elected to a five-year term on the Executive Committee of the Division on Literary Criticism of the MLA.

### PHILOSOPHY

Ofelia Schutte was an invited lecturer at the Universidad Internacional de Andalucia, Spain.

### POLITICAL SCIENCE

For the fourth year in a row, Goran Hyden gave an invited lecture at the Army War College in Carlisle, PA, in February. He spoke to 30 colonels all of whom are candidates to become generals in the U.S. Army.

### WOMEN'S STUDIES

Sue Rosser gave a live presentation on WPSU-FM, the Penn State Public Broadcasting station, as part of the "Women in Science" series.



**UNIVERSITY OF  
FLORIDA**

CLAS notes is published monthly by the College of Liberal Arts and Sciences to inform faculty and staff of current research and events.

Dean: Willard Harrison  
Editor: Lurel D. Ponjuan  
Graphics: Sally Brooks

Worldwide web <http://clas.ufl.edu/clas-notes>

## Dean Harrison Hosts Meeting of AAU Arts and Sciences Deans



Dean Harrison recently hosted a meeting of 38 Arts and Sciences deans from the American Association of Universities (public) in late January at Sanibel Island. Discussion sessions included such topics as post tenure review, data exchanges and academic advising. This was UF's first time hosting this annual meeting.

## HONORS AND AWARDS

The College of Liberal Arts and Sciences would like to congratulate the following faculty members for their achievements and recognition.

- ◆ John Cech's (English) book, *The Southernmost Cat*, has received a Storybook Silver Honor Award from the Parent's Choice Foundation.
- ◆ Karen Seccombe (Sociology) received an award from the American Sociological Association Funds to Advance the Discipline for her upcoming book, *"So You Think I drive a Cadillac?": Welfare Recipients' Perspectives on the System and Its Reform*.
- ◆ H. K. Eichorn (Astronomy) was honored by the International Astronomical Community by having an asteroid named after him. The citation reads: *Asteroid (4297) Eichorn: Named in honor of Heinrich Karl Eichorn (b. 1927), Austrian-American astronomer, educator and scholar, innovator in the astronomy of stellar positions and motions*.
- ◆ Kathryn Williams (Chemistry) received a \$15,000 grant from the Dreyfus Foundation to improve teaching instrumentation.

**Special note:** Robert Zieger, professor of history, also received a 1996-97 PEP award.

### 7th Annual Research Symposium

In an effort to encourage undergraduate research initiatives, to promote faculty mentoring of undergraduate research efforts, and to highlight the value of research to undergraduate education at the University of Florida, the College of Liberal Arts and Sciences will sponsor the 7th annual research symposium. The Undergraduate Research Symposium Committee will select from the nominations a maximum of 24 student research projects (8 each in the humanities, sciences and social sciences) for recognition, and will coordinate a presentation of the students' research on Saturday, April 19, 1997. The College will hold a luncheon in the Arredondo Room of the Reitz Union for students, their parents, chairs and faculty mentors following the morning sessions.

### Lecture Series Focuses on the Future

The Frontiers of Science Lecture Series, sponsored by the Department of Physics, continues to focus on the international technological competitiveness in the United States. The series is given by nationally known persons in their areas of expertise. Following is a list of lectures for March and April. They will be held in the University Auditorium and will begin at 8 p.m.

- |          |   |
|----------|---|
| March 5  | <p><i>William Brinkman</i><br/> <i>Physical Sciences Research Vice President</i><br/> <i>Bell Laboratory, Lucent Technologies</i><br/> <i>Murray Hill, New Jersey</i><br/> <i>"Unlimited Global Communications—The Technology and Challenges"</i></p>   |
| March 19 | <p><i>James K. Walker</i><br/> <i>Department of Physics</i><br/> <i>University of Florida</i><br/> <i>"A Case Study of U.S. Technological Competitiveness—Fiber Optics"</i></p>   |
| April 9  | <p><i>Kerri-Ann Jones</i><br/> <i>Acting Associate Director</i><br/> <i>Office of Science and Technology Policy</i><br/> <i>Executive Office of the President</i><br/> <i>Washington, D.C.</i><br/> <i>"International Science and Technology—National Security, Economic Competitiveness, and Global Stability"</i></p> |

### UF Women of Distinction

*In celebration of the 50th anniversary of the admission of women to full undergraduate status at UF, 47 alumnae are named as women of distinction. Listed below are those CLAS alumnae who will share this honor.*

**Carol Browner**—Administrator, Environmental Protection Agency; English '77

**Majorie H. Carr**— Founder and longtime president of Florida Defenders of the Environment; Biology '42

**Sara E. Conlon**—Director of the National Clearinghouse for Professionals in Speech Education and the state's first speech consultant; Speech Pathology '65

**Kathleen A. Deagan**— Research curator at UF's Florida Museum of Natural History, faculty member and premier archaeologist of colonial Caribbean and St. Augustine; Anthropology '74

**Molly Crocker Dougherty** —Professor of nursing at the University of North Carolina, Chapel Hill, significant researcher focusing on women's health issues; Anthropology '73

**Merrill J. Gerber**— Award-winning author of six novels and four collections of short stories; English '59

**Adele K. Graham**— Leader for historic preservation, school volunteerism; attended UF from 1956 to 1959

**Shere Hite**— Internationally known for her writings on sexual behavior in the U.S. and author of *"The Hite Report on Female Sexuality"*; History '63, '66

**Megan L. Neyer**— Chief of diversity management at the U.S. Air Force Academy, former diver, chair of Olympic Committee Athlete Support Program; Psychology '86.

**Patricia O'Connor**— Distinguished service professor at the University of Cincinnati, honored by Royal Spanish Academy of Language; Spanish/Romance Lang. '54, '62

**Dr. Marsha Raulerson**—Physician, created Partners for Tomorrow Program, teaching parenting to 200 rural Alabama families; English '63

**Joan D. Ruffier**—Businesswoman, past member and chair of Board of Regents, will be first female president of the University of Florida Foundation; English '61

**Emma Walker Schulken**—President of Virginia Highlands Community College; '59 (no major listed)

**Eleanor C. Smeal**— Former president of the National Association for Women, activist and authority on women's rights; Political Science '63

# Popcorn Helps Kids Learn About Statistics

What does popcorn have to do with statistics? A lot, says Richard Scheaffer, professor of statistics, who has helped develop curriculum materials to improve students' quantitative reasoning skills.

In order to help elementary-age children understand data collection and analysis, a big hot air popper is placed in the middle of the room. The top is left off so the kernels can fly all over. The students' job is to look for patterns in where the kernels land. They measure things such as how far the kernels travel from the popper and if the popped kernels go farther than the unpopped kernels. Scheaffer believes it's an active, fun way to introduce the basic concepts of data analysis.

"On the surface, a lot of the activities that we actually do sound pretty elementary," he said. "But it turns out that they can lead to a lot of quantitative reasoning and as-

sessments of how well these skill are developing."

This is just one activity created by Scheaffer and his colleagues in their joint work between the National Council of Teachers of Mathematics and the American Statistical Association. Their overall goal has been to find better ways of teaching quantitative skills to all children from kindergarten through high school, culminating in an AP statistics course at the high school level.

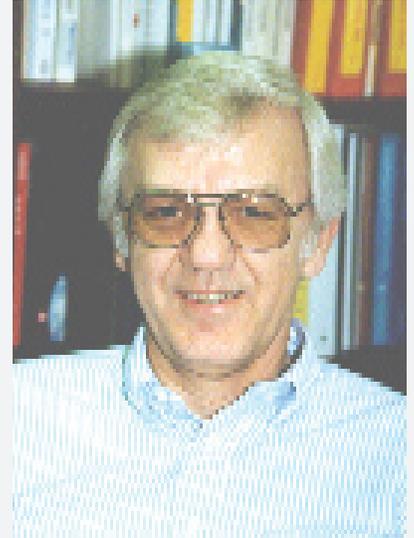
"We're addressing the issue of how we can have a more quantitatively literate citizenry," he said. "To do this, we have to educate children more effectively. Our first project was for the middle school grades. It taught teachers how to help their students reason with data."

Because of this project—funded by the National Science Foundation—mathematics curricula nationwide now include more applications that involve fitting models to data. Scheaffer is pleased with the results and believes educating children in statistics at an early age is imperative because of the large amount of information they'll be exposed to as adults.

"This is probably more important in recent years because we live in an information society where everything is quantified," he said. "Unfortunately, many times the numbers and data are often suspect, but the general public doesn't realize that. They just don't know what value to place on the numbers and tend to think all numbers are important."

By taking advantage of new technology, Scheaffer and his colleagues have been able to develop practical exercises that would otherwise have been impossible.

"Now we have computers, and hand-held graphing calculators that will compute the statistics and show graphical displays at the push of a button," he said. "We do things quickly and easily with school kids that we



*Richard Scheaffer and his colleagues work with the National Council of Teachers of Mathematics and the American Statistical Association to develop better ways to teach children quantitative skills.*

***"Unfortunately, many times the numbers and data are often suspect, but the general public doesn't realize that. They just don't know what value to place on the numbers and tend to think all numbers are important."***

**— Richard Scheaffer**  
Professor of statistics

wouldn't have been able to do 15-20 years ago."

In addition to creating a more literate public, an improved mathematics curriculum will also help our students be more competitive against students in other industrialized nations, Scheaffer said.

"That is one of our goals: to better educate our students in math and science so they'll be more competitive internationally," he said. "It seems we do a pretty good job of teaching kids basic manipulative skills such as adding, subtracting and multiplying, while our weakness seems to be in teaching reasoning and thinking skills. Teaching students how to reason with data will certainly help them." 📎

# USPS Employees Honored for their Service to the University

USPS employees in the College of Liberal Arts and Sciences were honored for their commitment and years of service to the university at a reception in the O. Ruth McQuown Room, February 20. President John Lombardi, Dean Willard Harrison and Robert Willits, associate director for Personnel Services, each offered words of gratitude and encouragement. The employees received a pin, a CLAS mug and a certificate signed by the Dean.

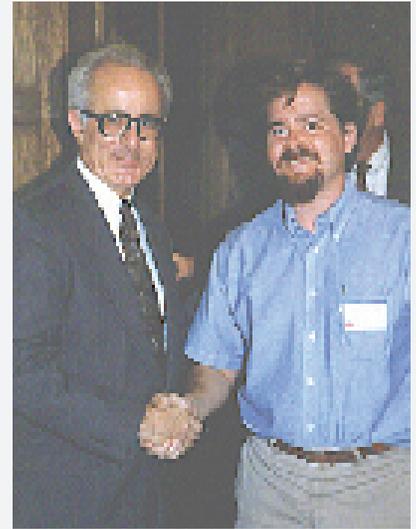
**Thirty Years:** Lois Greene—*Anthropology*; Mary Arnold—*Botany*; Dailey Burch—*Chemistry*; Theodore Fryer—*Psychology*  
**Twenty-five Years:** Richard Harris—*Classics*; Isaiah Washington—*Psychology* **Twenty Years:** Sherrel Brockington—*Academic Advising*; Patricia Dixon—*Physics*; Larry Frederick—*Physics*; Jimmie Norton—*Zoology* **Fifteen Years:** Debra Folks—*Botany*; Evelyn Rockwell—*Botany*; Ronald Ozbun—*Geology*; Cynthia Bright—*Physics*; Sarah Lee—*Psychology*; Ruth Ann Czerenda—*Zoology*  
**Ten Years:** Sally Brooks—*Office of the Dean*; Alfred Buhl—*Office of the Dean*; Suzanna Hicks—*Psychology*; Bonnie McLaurin—*Psychology*; Phil Padgett—*Statistics*; Margaret Roberson—*Zoology* **Five Years:** Dietra Howard—*English*; Susan Rizzo—*Physics*; Margaret Gratton—*Psychology*; Debra Mageed—*Academic Advising*



Lois Greene has worked at UF for 30 years. She is the office manager for the Department of Anthropology.



Evelyn Rockell—word processing operator in the Department of Botany—has been at UF for 15 years.



Alfred Buhl—computer operator manager in the office of the Dean—has been at UF for 10 years.



Sherrel Brockington is a program assistant in Academic Advising. She has been at UF for 20 years.



Debra Mageed has worked at UF for five years. She is a program assistant in Academic Advising.

# CLAS Faculty Make Headline News

CLAS faculty are recognized as experts in their fields of research in academia and the private sector. Following is a list of UF researchers whose comments and research have recently appeared in the media.

### Duels Solved Conflicts in Old South

*Bertram Wyatt-Brown*, professor of history, was featured on the *Discovery Channel* talking about duels and their role in the old-time political process.

### Eva Peron Agreed to Just One Portrait

The *Washington Post* quoted *Andres Avellaneda*, professor of romance languages and literatures, in a story about the only portrait of Eva Peron that she authorized.

### Do Movies Mirror Cultural Trends?

The *Washington Times* quoted *James Twitchell*, professor of English, about the cultural trends of recent movies.

### New Generation Enjoys “Star Wars”

The *Dallas Morning News* cited English professor *Andrew Gordon’s* work on the “Star Wars” trilogy. Gordon, an expert on the film “Star Wars,” was quoted on what the re-release of these movies means to the different generations.

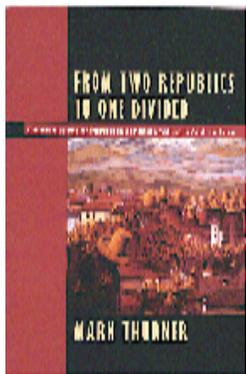
### Prof. Gives Status on Privatized Prisons

The *Santa Fe New Mexican* quoted criminology Professor *Charles Thomas* about his annual publication, *The Private Adult Correctional Facility Census*.

### Africa Isn’t One Country But Many

The *Times Literary Supplement* printed an article by *Michael Chege*, director of the Center for African Studies, concerning the structural programs in Africa.

## Book Beat



*From Two Republics to One Divided: Contradictions of Postcolonial Nationmaking in Andean Peru* (Duke University Press) by *Mark Thurner* (History). (review taken from book cover)

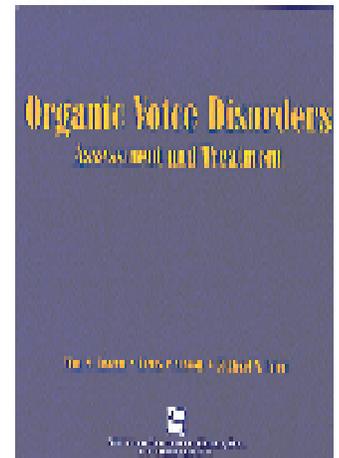
*From Two Republics to One Divided* examines Peru’s troubled transition from colonial viceroyalty to postcolonial republic from the local perspective of Andean peasant politics. Thurner examines the paradoxes of a resurgent Andean peasant republicanism

during the mid-1800s and provides a critical revision of the meaning of republican Peru’s bloodiest peasant insurgency, the Atusparia Uprising of 1885.

(Excerpt) *From Napoleon to Bismarck, nineteenth-century autocrats sought to create and seal patriotic allegiance to an emerging nation-state through infantry wars against neighboring Others. The drums of war and the defense of fatherland or homeland (patria) might, in the conflict approach to nationbuilding, unite an emergent nation otherwise divided by ethnic and class differences. Such an external opportunity to unite the nation in the common defense of homeland had presented itself uninvited at Peru’s front door when Chilean troops came knocking in 1879.*

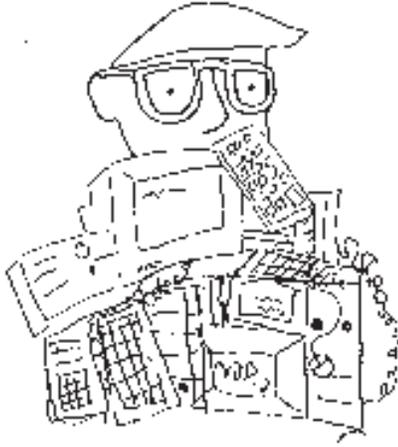
*Organic Voice Disorders: Assessment and Treatment* (Singular Publishing Group, Inc.) edited by *Wm. S. Brown* (Communication Processes and Disorders), *Betsy Vinson* (Communication Processes and Disorders) and *Michael Crary*. (review taken from preface)

*Organic Voice Disorders: Assessment and Treatment* is an edited textbook for individuals who have an interest in studying human voice production. It is intended to be a definitive text that reflects the current trends in prevention, assessment, diagnosis and treatment of voice disorders.



(Excerpt) *Most adults are aware, in a general way, of the function of the respiratory tract, through which air flows to and from the lungs. They recognize that this airway is composed of the mouth, nose, pharynx, larynx, trachea, and lungs. Observation and incidental study have revealed that vocal sound is produced when the vocal folds, which are located in the larynx, are set into vibration by the breath during exhalation.*

# High Speed Networks



The college operates networks in nineteen buildings (see the CLAS-net home page at <http://www.clas.ufl.edu/clasnet> for a list). These networks operate at 10-megabits per second—that is, the network has a rated speed of 10 million bits per second or approximately 1 million bytes or characters per second. In practice, the network transfers data at a much lower rate for any particular user, typically about 100,000 bytes per second or about 1/10 of the rated speed of the network. This performance is typical for ethernet, the kind of network we run. 100,000 bytes per second means that you can move about 50 pages of text in a second or one medium sized web image in one second. A good home modem transfers data at a rated speed of 28.8K bits per second, or about 3,000 bytes per second, which is roughly 30 times slower than the campus network. It would take about 1,700 seconds, or about half an hour to download thirty seconds of TV-quality video using a 28.8K modem. On the campus network, the same video clip will take about 50 seconds to download, which is still too long if you are standing in front of a class. For an informative look at the powers of ten and some facts regarding data storage, check out the

Data Powers of Ten page at <http://www.cacr.caltech.edu/~roy/dataquan/>.

So we want to go faster. Faster computers enable us to process more data (numbers, text, audio and images), and as we process more data, our demand to access more data grows. Current Internet technology is reasonably well balanced between computational power and communication speed. But computational power doubles every eighteen months according to Moore's Law. Moore's Law should be called Moore's observation, as there is no natural law here. But Intel and other chip manufacturer's have managed to double the speed of integrated circuits every eighteen months for the past twenty years and the trend is expected to continue for at least the next ten years. With faster computers we expect to push more data through our communication systems.

Our intra-building 10-megabit networks run on unshielded twisted pair (UTP) or thin-net cabling. The core network of the university operates at 100-megabits per second. As we renovate buildings we install high quality UTP cabling capable of 100-megabit transmission. This prepares us for eventual speed increases within our buildings.

In some cases, speed can be improved by isolating traffic. Rather than have all the machines in a building on the same network, the building can be subdivided into segments and each segment can be fed 10-megabit service. By having fewer machines on each segment, the segments operate at higher speed. Switched Ethernet can be two to five times faster than unswitched ethernet. Beyond switched 10-megabit service is 100-megabit service. Beyond 100-megabit service is switched 100-megabit service.

Beyond these speeds requires another new wiring system to the desktop computers. Fiber optic cable has a rated speed of 2-gigabits per second.

Such a system could deliver a two-hour movie with stereo sound to your desktop in a second. It could also provide for "channels" or pathways to be held open in the network to support streamed communication not subject to the Internet's rather uneven performance characteristics. Such is the hope of the developers of Internet II, a collection of technologies to be developed to provide reliable very high speed communication for data, voice and video over the next decade. We'll hear more about Internet II and our participation in it as details emerge.

CLAS and UF are planning upgrades to network wiring and electronics to improve the speed of networks in and between college buildings. Such improvements are designed to match the increasing speed of the computers that will be on those networks and provide for development and use of new technologies for teaching and research. Some of these new technologies will arise from Internet II. Others will come from new Internet and industry standards such as ATM (Asynchronous Transfer Mode). ATM could be an important technology for data and video transmission in the next two to five years.

So where does that leave home users and their modems? The newest modems are rated at 33.3K and this summer 56K modems will be sold. Higher speeds may come from the cable television companies who are experimenting with cable modems (modems that attach not to the phone system but to the cable television network and from there to the Internet). Such systems are capable of 1-megabit per second speeds now, but may be capable of 10-megabits per second in the next year or so. In any case, it looks like the speed of the network on campus will remain significantly higher than the network at home for the foreseeable future. ☺

# The Poverty of Science Wars

—by Frederick Gregory, former chair of the history department and current president of the History of Science Society

*(While virtually all of us have encountered the notion of a “paradigm shift,” not everyone is familiar with who coined the phrase or when it began its extraordinary journey across academic disciplines. Its author was historian of science Thomas Kuhn, who in 1962 introduced the concept in his now famous book, **The Structure of Scientific Revolutions**.)*

Tom's death last summer hit me much harder than I ever would have anticipated. So much had been opened up by his work. But it was more than merely a memory of the novelty and freshness of his message that I pondered. Tom's achievement seemed to have finished something as well; hence his death also symbolized whatever it was that he had brought to an end. What that was has been less clear.

At the annual meeting of the History of Science Society last November, Tom's name came up more than once. Historian of medicine Charles Rosenberg observed that in 1962 Tom could not have anticipated the polarized antipathies that emerged in the wake of his success. Neither, continued Rosenberg, did he approve the “science wars” of 1996. Yet it is undeniable that after Tom's book was published science had been brought, as Charles put it, “into the realm of the temporal, the contingent, the negotiated.” The Pandora's Box of epistemological and social privilege scientists enjoyed prior to Kuhn's time had been opened. Yes, Charles continued, science had been moved from the timeless to the mundane. Yes, few scientists remained noble and disinterested seekers after truth in their ethnographer's account. And yet nowhere did Tom Kuhn assume that he had forced historians or anyone else to declare that the human circumstances of a scientific

discovery were more important than the discovery itself, as if one had to choose between mutually exclusive factors.

Another participant was particularly unhappy with what she called “the dichotomous misrepresentation” of the fields of science and science studies by media bent on sensationalizing. Actual exchanges among scientists reveal a variety of diverse opinions about the status of scientific knowledge just as among science studies scholars

experience of interaction between historians and scientists has been and remains nothing like what has been depicted in the attacks that make headlines.

The last two speakers in the session stressed the pragmatic benefits of constructive interaction. One suggested that historians and philosophers of science might even play a facilitating role for scientists who have become overly invested in existing theory, provided there is mutual respect between the scientists and historians and provided the latter possess technical competence necessary to understand the science in question. The other speaker reminded us of the key role scientists played in transforming the university after World War II into places where research and scholarship flourished in relative freedom. He drew a parallel between scientists then and intellectuals today, urging us in the present to be wary of an ominous new transition that threatens to commercialize research. Should we abandon our responsibility as Kulturträger by becoming Kulturkämpfer we become expressions of the very forces that threaten the academy.

No one, it would seem, found anything good at all in the extreme positions that have been trumpeted about in public. And neither, I am convinced, would Tom Kuhn. So what was it that Tom brought to an end? Why did I have the sense that the end of something had been marked? The answer, for me, is that after Kuhn's work science could never again be captured by any simple or even homogeneous set of categories. That means no individuals, including scientists and historians, can any longer claim to be the “true” spokespersons for science and/or its history. It is really just a matter of learning how to

*“The answer, for me, is that after Kuhn's work science could never again be captured by any simple or even homogeneous set of categories. That means no individuals, including scientists and historians, can any longer claim to be the “true” spokespersons for science and/or its history.”*

—Frederick Gregory  
Professor of history

there is and has been a spectrum of views about relativism. But all these differences have been flattened into “science wars” by protagonists on both sides and the result has been that the relationship between scientists and historians has too often of late been determined by media and their interests. The testimony of all four participants in the plenary session betrayed that their

# Categorical Data Analysis Key to Soc. Science Research

*Following is an interview with Alan Agresti, professor of statistics.*

***The area of research you focus on is categorical data analysis. What exactly is that?***

The measurements we use fall into one of a set of categories such as whether a person considers him/herself a Democrat, Republican or an Independent or whether they choose to buy an import or domestic car. These sorts of data occur often in all areas, but especially in the social sciences. The statistician's role is to develop methods to determine how one's outcome depends on other factors. For example, how does a person's preference for president depend on gender, race or religious affiliation? Statisticians deal with ways of trying to figure out which of these sorts of things have an impact and how strong the impact is.

***Why do you enjoy this kind of research as opposed to other areas of statistical analysis?***

Compared to statistical methods based on the normal distribution for numerical outcomes such as IQ, SAT score or cholesterol level, methods for categorical outcomes have been under development very recently, primarily in the past two decades. The methods have been especially useful in disciplines that traditionally were not highly quantitative, such as the social sciences. Working in this area gives me a chance to develop statistical methods motivated by interesting real-world problems.

***Categorical analysis is used not only in the social sciences but in the medical field as well. What are the connections between the two?***

For instance, physicians need to

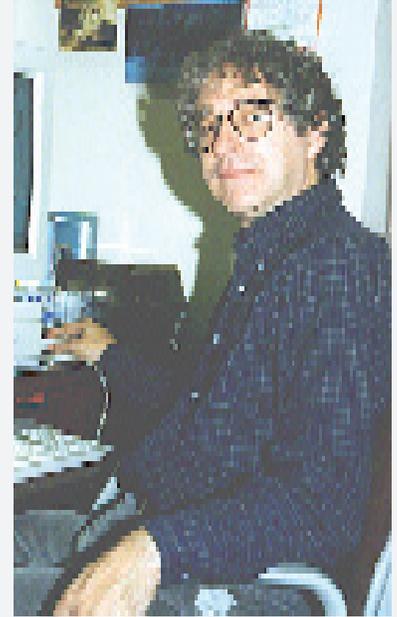
know that if a patient undergoes a particular kind of treatment, what are his/her chances of living or dying? Or a physician might need to evaluate a patient's progress while they are receiving a certain treatment, deciding if the response is good, fair or poor. That's something that is usually subjective and again involves a set of categories. These sorts of data are quite common in biomedical applications, and the same sorts of methods that work well in social science problems tend to work there also. In fact, although my main interest is in social science applications, my research funding has been from the National Institutes of Health.

***Your research has helped several CLAS faculty interpret their findings. Would you mind giving a brief explanation of some of your collaborative CLAS projects?***

I've helped John Henretta in sociology with models for various gerontological questions, such as one's decision about whether to choose early retirement. I've done some work with Mike Radelet, who studies the effects of racial characteristics of defendants and victims on who gets the death penalty. That's another good example of a categorical outcome: a defendant either receives it or doesn't. I've also helped Jane Brockmann in zoology. She was studying female horseshoe crabs and what attracts males to them. There are several possible factors, and using a standard method for categorical outcomes called logistic regression, we determined that the crab's size had the impact in attracting males.

***Would you mind explaining one of your recent projects?***

One of the most recent papers I wrote had to do with movie reviewers and how they rate movies. A colleague,



*Alan Agresti's research focuses on categorical data analysis and developing statistical methods motivated by real-world problems.*

Larry Winner, and I looked at Siskel and Ebert and their thumbs up-thumbs down ratings system which is a great example of categorical data analysis — the movie is either good or bad, they either recommend it or they don't. We found that of eight of the most popular reviewers in this country, Siskel and Ebert have the strongest agreement. You tend to think of them as adversarial but they actually agree with each other more than any other two movie reviewers did. Our study will be the cover story in an upcoming issue of a popular statistics magazine, CHANCE. This is just one example of the many areas you can apply categorical data analysis. 📧

# CLAS Faculty Receive 1996-1997 TIP Awards

In 1993, the State of Florida implemented the Teaching Improvement Program (TIP) to recognize and reward those faculty members who exemplify exceptional teaching quality and productivity. CLAS is pleased to announce the following faculty members who have received a 1996-1997 TIP Award.

## Department of African & Asian Languages & Literatures

Susan A. Kubota, *Lecturer*  
Ann Kathryn Wehmeyer, *Assoc. Prof.*

## Department of Anthropology

Paul J. Magnarella, *Professor*

## Department of Botany

Walter S. Judd, *Professor*  
Francis E. Putz, *Professor*

## Department of Chemistry

James A. Deyrup, *Professor*  
Randy Duran, *Assoc. Prof.*  
Lisa A. McElwee-White, *Assoc. Prof.*  
David A. Micha, *Professor*

## Department of Classics

Mary Ann Eaverly, *Assoc. Prof.*

## Department of Communication Processes & Disorders

Christine Sapienza, *Assist. Prof.*

## Department of English

Marsha Bryant, *Assist. Prof.*  
Amitava Kumar, *Assist. Prof.*  
David Leverenz, *Professor*  
Brian R. McCrea, *Professor*  
John P. Powell, Jr., *Professor*

## Department of Geography

Nigel J. Smith, *Professor*

## Department of Geology

Paul F. Ciesielski, *Assoc. Prof.*

## Department of Germanic & Slavic Languages & Literatures

Eva Eichhorn, *Lecturer*  
Willard R. Hasty, *Assoc. Prof.*

## Department of History

Jeffrey S. Adler, *Assoc. Prof.*  
Geoffrey J. Giles, *Assoc. Prof.*  
Robert A. Hatch, *Assoc. Prof.*

## Department of Mathematics

Kevin P. Keating, *Assoc. Prof.*  
Theral O. Moore, *Assoc. Prof.*  
Kermit N. Sigmon, *Assoc. Prof.*  
Marvel Townsend, *Lecturer*

## Department of Philosophy

Thomas P. Auxter, *Assoc. Prof.*

## Department of Physics

David Reitze, *Assist. Prof.*  
Fred Sharifi, *Assist. Prof.*  
Christopher J. Stanton, *Professor*

## Department of Political Science

James W. Button, *Professor*  
William A. Kelso, *Assoc. Prof.*  
Albert R. Matheny, III *Assoc. Prof.*

## Department of Psychology

Richard A. Griggs, *Professor*  
Martin Heesacker, *Professor*  
Charles M. Levy, Jr., *Professor*

## Department of Religion

Dennis E. Owen, *Assist. Prof.*  
Miriam B. Peskowitz, *Assist. Prof.*

## Department of Romance Languages & Literatures

Michel J. Achard, *Assist. Prof.*  
Juanita W. Casagrande, *Lecturer*

## Department of Sociology

Felix M. Berardo, *Professor*  
Frederick A. Shenkman, *Assist. Prof.*

## Department of Statistics

Myron Chang, *Assoc. Prof.*  
Lawrence Winner, *Lecturer*

## Department of Zoology

Douglas Levey, *Assoc. Prof.*

# Grant Awards through Division of Sponsored Research

January 1997 Total \$3,216,802

<i>Investigator</i>	<i>Dept.</i>	<i>Agency</i>	<i>Award</i>	<i>Title</i>
<b>Corporate...\$650,803</b>				
Duran, R.	CHE	Am Chemical	50,000	Sequencing and structural investigations of copolymerization reactions.
Krause, J.	CHE	Am Chemical	20,000	Laser control of chemical and material processes.
Vala, M.	CHE	Am Chemical	50,000	Spectroscopic studies of polycyclic aromatic hydrocarbon and carbon ions.
Katritzky, A.	CHE	Bayer	40,000	Miles compounds contract.
Katritzky, A.	CHE	Ciba-Geigy	27,225	Compound supply.
Katritzky, A.	CHE	Cor Ther	45,000	Cor therapeutics: provision of compounds.
Katritzky, A.	CHE	FMC	36,680	FMC compounds contract.
Katritzky, A.	CHE	Imation	63,000	Project of carbonless products.
Katritzky, A.	CHE	Monsanto	65,000	Succinimide chemistry.
Katritzky, A.	CHE	Multi	5,083	Software research support.
Katritzky, A.	CHE	Rhone-Poul.	25,650	Rhone-Poulenc compounds agreement.
Hudlicky, T.	CHE	Ciba-Geigy	36,054	Synthesis of a presumed metabolite.
Wagener, K.	CHE	Dow Corning	64,305	A technology for siliconizing polymer surfaces.
Dolbier, W.	CHE	Elf Atochem	54,963	Insertion Reaction of halocarbons into halogenated alkenes.
Dolbier, W.	CHE	Synquest	15,657	Organic synthesis and mechanism.
Reynolds, J.	CHE	Monsanto	43,801	Active molecule delivery using electroactive polymers.
Hollinger, R.	SOC	Walgreens	5,000	Security research project.
Marks, R.	STA	US Biomat.	3,385	Clinical trial research design.

## **Federal...\$2,441,318**

Bowes, G.	BOT	NSF	65,000	Characterization of C3 phosphoenolpyruvate carboxylase isoforms.
Winefordner, J.	CHE	NSF	93,000	A microwave plasma for multielement trace analysis.
Schanze, K.	CHE	NASA	75,000	Development of temperature sensitive paints for wind tunnel testing.
Benner, S.	CHE	NIH	151,657	Oligonucleotide based tools for treating HIV.
Hudlicky, T.	CHE	NSF	205,000	Biocatalytic conversion of aromatic waste to useful compounds.
Micha, D.	CHE	US Navy	5,000	US-Latin American workshop on molecular and materials sciences.
Adams, E.	PHY	NSF	110,000	Magnetism of solid helium-3.
Dorsey, A.	PHY	NSF	64,800	Theoretical studies of vortex dynamics in superconductors.
Avery, P.	PHY	DOE	74,126	Task B: Research in theoretical and experimental elementary particle physics.
Avery, P.	PHY	DOE	9,790	Task S: Research in theoretical and experimental elementary particle physics.
Shuster, J.	STA	NIH	1,587,945	Pediatric Oncology Group statistical office.

## **Other...\$42,350**

Bernard, H.	ANT	Misc Don	3,150	Miscellaneous donors.
Dermott, S.	AST	Misc Don	3,497	Astrophotographic studies program.
Jones, D.	BOT	Misc Don	4,000	Miscellaneous donors.
Jones, D.	BOT	Misc Don	14,500	Miscellaneous donors.
Thomas, C.	CRI	Multi source	2,000	Private corrections project.
Mueller, P.	GLY	Misc Don	13,835	Miscellaneous donors.
Sorkin, R.	PSY	Misc Don	1,368	Psychology miscellaneous donors.

## **State...\$6,000**

Giesel, J.	ZOO	Game Comm	6,000	Research to determine subspecies of sandhill cranes.
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## **Universities...\$76,331**

Malecki, E.	GEO	Purdue	41,399	Florida component of information sources for rural manufacturing firms.
Channell, J.	GLY	Texas A&M	2,314	Participation on scientific cruise of the Joides Resolution.
Tanner, D.	PHY	U of Cal	17,000	Optical reflectivity/transmittance measurements of correlated electron compds.
Scicchitano, M.	POL	UF Athletic	4,680	A survey of Gator sports fans.
Shuster, J.	STA	U of Texas	10,938	Statistical support for UT Southwestern Methotrexate project.

as a major need in the campaign. To say the least, our alumni and friends responded magnificently.

The amount of scholarship/fellowship money we distribute has risen from the previously indicated \$3,000 to about \$230,000 annually. The number of undergraduate scholarships has risen from 3 to 81. The number of graduate fellowships has risen from 0 to 37. And I reiterate that all of this has come about from gifts of our alumni and friends. Several people work very hard to achieve this success, starting with our current development staff of Carter Boydston and Ed Blue. This is why fund raising (aka "friend raising") is so important to CLAS. And by no means can we rest on these successes. We need more scholarships, and our need is particularly great in fellowships to cultivate stronger graduate programs. Graduate students are needed, almost by definition.

Each year we invite the graduate Fellows and their fellowship donors to a celebratory dinner that is a truly extraordinary evening. Anyone who can listen to these rising scholars stand before us and describe their current work and their plans for the future without feeling good about this next generation has to have a thick and crusty heart. It is a marvelous occasion, and I've always thought that if we could just get more prospective donors to experience the scholarly excitement of that evening, we would surely meet all our fellowship goals.

The other areas in which we raise money are also success stories, but space does not permit more here. Recall, however, that a new campaign is about to commence, one that will without doubt be even more successful than the first, and CLAS faculty and students will be the benefactors. We have set ambitious goals in CLAS, and we ask your help in exceeding them.

**Will Harrison,**  
*Dean*

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standard treatment."

Another example of the critical role statistics research plays in the treatment of children's cancer involves the continuation of chemotherapy in treating Osteogenic Sarcoma (a type of bone tumor).

"Researchers from the Mayo Clinic had claimed that chemotherapy was the promise that didn't deliver for patients with this kind of bone tumor, and that radical surgery and/or amputation was all that was necessary," Shuster said. "The POG study, however, proved that chemotherapy was valuable and actually contributed at least a 30% advantage in long-term survival."

The POG accrues approximately 2,000 patients a year. It manages their treatments by randomly placing them in specific study groups and sequentially monitoring each group's progress. If results show that one group isn't performing as well as expected,

the researchers will either stop the study or begin another form of treatment. This is to ensure that a group of patients doesn't suffer as a result of the treatment group they're in.

"Our job is to track the trials very closely," he said. "We have to watch to see if there's a difference emerging. If there is, we can close the study, report the change and then re-treat some of the patients if needed. We're very concerned with safety."

Shuster believes one of the strengths of the POG is the diverse team of specialists dedicated to researching, treating and curing children's cancer.

"It's a really good example of multi-disciplinary research," he said. "Within our office, we have statisticians, systems analysts, data managers and administrative personnel. Outside of our office, we work closely with clinical and basic science

## From the Chair....

### Ronald Randles, chairman of the Department of Statistics

The Department of Statistics provides a comprehensive program to serve the needs of students and this diverse academic community. It offers undergraduates a variety of courses which satisfy general education requirements and introduce the fundamentals of statistical design and analysis, enabling students to read the research literature of their major. The undergraduate degree programs have 60 majors preparing for graduate study or for careers in quantitative positions in business and industry. The department plays a major role in training graduate students from many disciplines in the statistical design and analysis methods needed to conduct their individual research projects. It also offers a diverse environment in its graduate degree programs which currently have 55 majors working on M.S. and Ph.D. degrees.

Department faculty have a wide variety of research interests which range from theoretical to applied

topics and cover a broad spectrum of methodologic areas. Categorical data analysis, design of experiments, linear models, Bayesian analysis, biostatistics, nonparametrics, clinical trial methods, statistics education, genetic data and probability theory are some of the areas of interest.

In addition, the department faculty actively collaborate with scientists in other disciplines on important research investigations. The Division of Biostatistics, located in the Health Science Center, and IFAS Statistics in McCarty Hall provide statistical expertise for collaboration with researchers in those areas. The Pediatric Oncology Group Statistical Office conducts clinical trials worldwide investigating treatments for childhood cancers. Other faculty collaborate with colleagues in business, engineering and the social sciences.