

N^DWorks

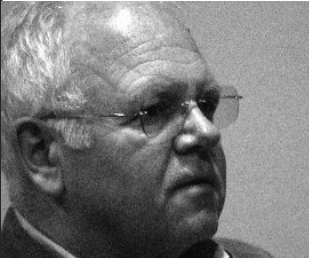


Vol. 1, No. 7
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University spam fighters also are virus vigilantes

By Gail Hinchion Mancini

Paul Russell is a glutton for punishment. Here's a guy who actually invites spam onto his desktop.

"In the last 72 hours, I've received 22 spam messages," says Russell, who monitors spam and virus traffic for the Office of Information Technologies. "They're selling prescription drugs, pirated software, green cards for immigrants, refinanced mortgages. Stocks. And—never mind. It's kind of off-color."

As senior systems analyst for Messaging Services, Russell has seen an explosion of spam and, most recently, a merging of the mission of spammers with the motives of those who write viruses.

His success and that of his partner John Buysse is based partly on selecting the right spam and virus filters and monitoring what they block.

Like David Letterman, they keep a Top 10 Lists—of rejected spam sources, of virus sources, of the sources of inbound mail that is rejected. Curious fact: the sources of spam and viruses often are Notre Dame desktops, themselves infiltrated by coding that tries to get them to pass on troublesome content. Monitoring these trends helps them identify patterns that point to infected or compromised content that bears further investigation.

Spam, or unwanted commercial solicitation, appeared shortly after convenient public access to the Internet began, and mass-mailed viruses date back to the late 1990s.

"About a year and a half ago things started to take a turn," says Russell, who saw it in the numbers. Previously, the greatest number of blocked virus messages had been around 30,000 a month. At the height of the So-Big worm, "we were detecting more viruses per day than we had detected in our previous high month."

Russell sounds almost disillusioned by the fact that So-Big's grandest accomplishment was to infiltrate machines merely to deliver spam.

"It used to be that virus writers were juveniles and teenagers who



Paul Russell, at keyboard, and John Buysse survey another series of reports on unwanted spam e-mail. *Photo by Lou Sabo.*

wanted to invade a machine to show that they could," he said. "Like painting graffiti on a bridge, they were doing it for their own enjoyment.

"Now, mischief has gone commercial. The graffiti kids are no longer painting for their enjoyment. They're collecting money from the merchants to do it."

Russell has a fair level of confidence in the University's virus and spam software shields. But inevitably, when the University experiences periodical invasion, its computers and

networks are vulnerable during the few-hour period when the software companies are creating new shields.

Even with effective shields, spam represents a terrible drain on Notre Dame's resources. Russell estimates servers have to carry one-third additional capacity just to handle the volume of unsolicited and unwanted mail. Even with shields, about 20 percent of mail to any one employee's desktop is spam. That forces employees to live with the

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Magazine ranks Notre Dame ninth in colleges for Latinos

By Shannon Chapla

Hispanic Magazine has ranked Notre Dame ninth on its 2004 list of "Top 25 Colleges for Latinos," the third consecutive year the University has made the list since its debut in 1999. Notre Dame was ranked 15th in 2002 and 16th last year.

The magazine based its evaluations on academic excellence and Hispanic achievement. It gathered information from numerous sources including the universities, Hispanic scholarship organizations, U.S. News & World Report's annual survey "America's Best Colleges," and Hispanic Outlook in Higher Education, which publishes a list of the top 100 institutions that award bachelor's degrees to Hispanics.

Diversifying Notre Dame's population has been a top priority for Rev. Edward A. Malloy, C.S.C., the University's president. Since 1987, when Father Malloy took office, minority enrollment has increased from 7.5 percent to 17 percent. Currently Hispanics constitute almost 8 percent of undergraduate enrollment.

"I am very pleased about the dramatic increase in the members of underrepresented groups here at Notre Dame," Father Malloy said. "We've worked hard to get the application numbers up, provide increased funding for scholarships, and also to make sure those who are

admitted decide to come. We're striving to make Notre Dame more clearly resemble the demographics of the country and of the world."

Hispanic Magazine praised the University's Building Bridges Mentoring Program, sponsored by Multicultural Student Programs and Services (MSPS). The program matches minority, first-year students with faculty and administrators to help ease the adjustment to college life.

Other programs at Notre Dame that help support Latino students include numerous retreats and Masses, service-learning opportunities, and, perhaps most notably, the Institute for Latino Studies (ILS).

Founded in 1999, the ILS plays a pivotal role in providing an academic environment that advances knowledge and understanding of the Latino experience in the United States. As an interdisciplinary unit, the institute seeks to incorporate the study of the Latino population of the United States as a vital component of the University's academic mission and also provides an administrative home and support for the Latino student clubs on campus.

"Students are central to our mission and have been incorporated into the life of the institute from the beginning," said ILS director Gilberto Cárdenas, assistant provost for institutional relations and the Julian Samora Professor of Latino Studies. "Recognizing that the needs of

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Forum

Academics and football: Notre Dame traditions



Malloy

In November 2002, the Oakland Raiders receiver Tim Brown, a 1987 Heisman Trophy winner at Notre Dame, told a Denver Post interviewer about racial tensions he had encountered as an African-American in Texas and California.

"When we were in L.A. it was pretty bad," he said. "I had people who lived next to me who never spoke to me, who if I came outside would run in their house, like I was the bogeyman."

Tim then talked about his college life. "When I went to Notre Dame, most of my friends were white and Chinese, all different kinds of nationalities. I left Notre Dame saying, 'Wow, the world is really a great place.' But being in L.A. and even back home in Dallas can be very eye-opening."

Race remains an issue that is rarely far from the surface of American life. This was proved again when another Irish Heisman winner, Paul Hornung, said Notre Dame should lower its academic standards "because we must get the black athlete if we're going to compete."

Fortunately, Paul has since apologized for the insensitivity of those remarks, but the furor on ESPN and the sports pages has unleashed a torrent of theories and occasional misinformation about Notre Dame and its football program.

A few facts follow:

A majority of our current team and our incoming class of freshman players is African-American. The current scholarship roster includes 34 African-Americans and 33 white players. In the class arriving late this summer, 12 of the 17 are African-American.

Though there is a perception that our academic standards make it difficult for athletes to succeed, the graduation rate for Notre Dame student athletes was recognized last fall by USA Today as the best in the nation at 92 percent. In standings announced by the N.C.A.A. last December, we ranked sixth in graduating African-American athletes (78 percent).

Also, no university had more former players—40—in the National Football League last season than Notre Dame.

Yes, our football team had a 5-7 record last season, after going 10-3 the season before. Over the years we have had many great seasons and a few dismal ones.

It is true that we admit some promising athletes who would not gain admission on their academic credentials alone. But we will not admit any student who does not have the capacity to attain a legitimate degree with his or her class. In the past 30 years, our standards for "special interests" have remained constant while the academic profile of the student body as a whole has grown even stronger.

In the face of stiffer competition academically, we feel a moral obligation to see that our athletes get a quality education and a meaningful degree. To achieve this, we surround our student athletes with a support system for academics and life skills.

As a Catholic university in Indiana, we may not seem like a natural choice for many African-American students, but we have made progress toward greater diversity. Our overall minority population has grown to 17 percent from 12 percent in 1984. Last year's incoming freshman class hit 20 percent, and this year's will as well.

In my years as president of Notre Dame, we have emphasized the importance of greater racial and ethnic diversity. As someone who teaches an English seminar each semester, I can assert from my firsthand experience that the African-American students are not only well qualified, but they also enhance considerably the overall learning environment here.

The University is committed to excellence and success in all that we do. We dearly want to win consistently in football. It is a major part of our heritage and our tradition. During my four undergraduate years (1959-63), Notre Dame had the worst record in football in the team's modern history. Critics were decrying our ability to succeed. Yet, we rebounded to win several national championships.

In Tyrone Willingham, we have a head football coach who represents the best of what intercollegiate sports is all about. He will continue to recruit outstanding athletes who fit Notre Dame.

It is noteworthy that our commencement speaker this spring will be Alan Page, an African-American from Notre Dame who is a member of the collegiate and professional football Halls of Fame. He will speak to our graduates as a member of the Supreme Court of Minnesota and as the founder in 1988 of the Page Education Foundation, which has provided educational opportunities for 1,885 young people from deprived backgrounds.

After a disappointing season in football, we are not far from success. We expect to win, and to send into the world more men and women who succeed like Alan Page and represent all Notre Dame stands for.

Rev. Edward A. Malloy, C.S.C., president

This column ran in the the New York Times sports section on April 4.

Ghilarducci gets early call from presidential candidate

Among signs that the timetable for the upcoming Presidential election has changed: Academics like Teresa Ghilarducci, associate professor of economics, have already been approached to help draft policy.

Democratic presidential candidate John Kerry's campaign team has asked Ghilarducci to address employee pension issues in the context of a broader examination of how to return manufacturing jobs to the United States.

"I am doing what I did after (former President Bill) Clinton's election, around January 1993," she says. "Then, as now, I was asked to write a two-page technical memo. For Kerry, I wrote a memo that will fit in to their plan for revitalizing the manufacturing sector."

Ghilarducci says she has proposed a "one-tenth of one percent solution," whereby a small portion of the nation's pension funds would be dedicated to helping fix an unintended consequence of bank mergers that ultimately disadvantages small manufacturing firms. Right now, the pension investment system is skewed to support large funds and big deals. "They overlook many profitable, smaller family-held manufacturing firms," she says. "My plan would be to create an adjunct to the Small Business Administration that would add an equity piece to their loan program."

"Small private equity firms realize this opportunity and are marketing their funds of small manufacturing firms to pension funds. But it is decentralized, tedious, a little bit sleazy and no one is served, not the pension funds or the small firms."

Ghilarducci has testified before Congress about pensions and, for former President Clinton, served on the Pension Benefit Guaranty Corporation's advisory board. As a member of the board of trustees of the Indiana Public Employees Pension Board she has seen the challenges for Indiana workers of recession and the changing U.S. economy. Last summer, she met a communications director for the Steelworkers Union who is now on Kerry's public policy team and who drafted her for this duty.

Ghilarducci wasn't surprised to be asked for help. "It's just so early," she says.

In the past, candidates may have begun preparing policy, but usually not until they won the nomination, she says. The depth of questions being asked, she says, is more in line with the kinds of thinking presidents undertake when they're planning their first 100 days.

Spam

continued from page 1

clutter, take time to delete it, or—to Russell and Buysse's occasional horror—to open an attachment that contains a virus.

Russell and Buysse also work one-on-one with University employees who are unable to receive e-mails because they are being delivered from blacklisted, or blocked, Internet service providers. They attempt to ensure that all legitimate e-mail is delivered, even when the sender is using an Internet service provider with a proven track record as a source of spam. The easiest way to do this used to be to white list the sender's address, but massive outbreaks of mass-mailing viruses that use forged sender addresses have virtually eliminated this option. In many cases, the analysts must white list

the recipient's address, so that all messages addressed to that individual—including messages from known spam sources—are delivered.

While Russell and Buysse represent the first line of defense against spam and viruses, OIT provides methods for every network user to become a spam-fighting, virus-blocking deputy. One can self-enlist by using OIT's online e-mail blocking programs at <http://www.nd.edu/~eds>.

Russell says a more popular method appears to be to take an OIT class on e-mail options. Even though he blocks unwanted Internet messages, he's got a good feed from the University grapevine. "I hear 80 to 90 percent of the people who take that class do it to learn to block spam."

NDWorks

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PROFILE

Business immersion a boon for engineers

By Gail Hinchion Mancini
and Nina Welding

Robert M. Dunn has been receiving the kinds of contacts from former students that would thrill any professor.

For example, 2003 chemical engineering graduate Nik Larsen wrote Dunn about the successes he'd been experiencing at Marathon Oil, having taken the Integrated Engineering and Business Practices sequence that Dunn directs for the College of Engineering.

Larsen told Dunn how—at all of 23 or 24 years old—he had been able to analyze the corporation's financial measurements and relate them to his unit and their work. The new kid on the block was teaching the veterans about the kinds of business decisions and planning they might undertake in the context of the larger corporate perspective.

"He said his peers themselves didn't understand what he was doing. They were impressed with his explanations," says Dunn. Larsen's former classmate, Chris Rayment, is making a similarly good impression at Ingersoll-Rand.

Larsen and Rayment learned these analytical skills in the two-course program Dunn introduced in the College of Engineering three years ago. Some engineering schools have begun to create combined engineering and business programs, but few undergraduate programs will offer business studies across all engineering disciplines. Here at Notre Dame, the courses have become so popular with students that a second full-time position was instituted in fall. John M. Brauer, associate program director, joined the faculty, as Dunn did, after a lengthy career at IBM. Right now, 55 percent of engineering undergraduates take the first course and one-third take the second.

Dunn himself learned business skills from what is commonly referred to as the School of Hard Knocks. He graduated from Notre Dame with a bachelor's degree in engineering science in 1965, earned a master's degree in engineering mechanics from Pennsylvania State University in 1967 and a doctorate in aeronautical engineering from the University of Illinois at Urbana-Champaign in 1972. He worked at IBM for 33 years, climbing the ranks from design engineer to vice president and site manager of IBM's Poughkeepsie, N.Y., complex, a facility composed of 15 major divisions and 6,000 employees. He also managed the development of a multidivisional unit in Dublin, Ireland, from green field site to operational facility.

Over that period, he gained expertise in product and technology development, manufacturing, human resources and management. Of his self-taught business savvy, he says, "I learned through on-the-job training, making mistakes, or by watching what happened when others around me made mistakes."

"Today's environment is so much more competitive. Companies don't have the time to help young people get started the way they used to," he says.

As he began his fourth decade with IBM, Dunn says he thought he would work in the corporate world for a few more years. But a friend who also serves on the engineering advisory board told him of this new teaching direction Notre Dame was ready to undertake. Faculty, the college administration and the advisory board all believed that undergraduate coursework in business basics was essential for students who would take jobs in the corporate culture. (This sequence is not seen as essential to students who plan to do research or work

for the military.) They had outlined a program and were searching for a director.

Over two courses, the business practices program helps engineering students develop an understanding of the dynamics of corporate operations, and the kinds of managerial and technical leadership roles needed in the corporate environment.

Integrated Engineering and Business Fundamentals, the first course in the sequence, focuses on four subject areas: the corporation and its financial processes; human resources and management; innovation processes, including project management; and supply chain processes and quality. Students learn how to read financial reports, and they study business planning cycles as they review corporations and their financial processes. They examine managerial styles and organizational climates and discuss human resources hiring trends.

Product development, marketing, and life cycle management are among the topics covered in the innovation processes segment of the course. The supply chain section covers topics from manufacturing and procurement to distribution, flow of materials, and quality concepts.

During the second course, Advanced Topics in Integrated Engineering and Business, students learn about globalization, outsourcing, and the creation of business plans. Case studies and special projects offer them opportunities to study the successes and failures of others. A simulation exercise organizes students in teams around a software program called CAPSIM that allows them to experience the dynamic interactions of a company's operations.

It would be no surprise to learn that, in his years at IBM, Dunn was something of an efficiency expert. In his quest to expose students to numerous experiences in a very short period,

he assigns the classic books of business leadership to individual students, who must present the core concepts in a formal presentation to their classmates. "This is not a speech class," he says, "but I found engineering students don't get that many opportunities to make presentations."

Dunn's students have a keen sense of how different these courses are from the usual engineering curriculum. Amy Eischen says she would have been taking environmental microbiology had she not been in the Advanced Topics course. On a recent Friday, she and fellow classmates listened as Lauren Krietemeyer provided a 20-minute distillation of the key points of the business classic "How to Win Friends and Influence People."

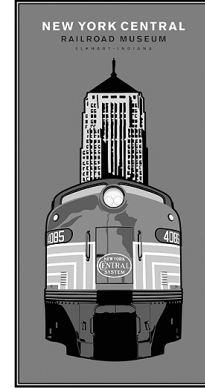
Says their classmate Joseph Saliba, "This might seem easier in terms of curriculum. But this is preparing me for so much...an MBA, for example."

Showing the same poise as she had in her animated PowerPoint presentation, Krietemeyer adds, "This class provides a lot of hands-on experience. It's a good way to learn."

As Dunn and Brauer finish the semester, they are considering changes to the overall curriculum. It's time, Dunn says, to add a focus on entrepreneurship. By virtue of their training, engineers can bring technical and problem-solving skills to a wide range of industries. "The challenge," says Dunn, "is learning how to best apply those skills."

Of Note

A Robert Sedlack poster designed for the New York Central Railroad Museum in Elkhart has been selected for publication in Harper Design International's 2004 "Graphis Poster Annual," the only bound volume dedicated exclusively to poster design. It is among 300 designs selected from thousands of international entries. The annual is considered a prestigious resource for designers, clients and appreciators of poster design.



Sedlack is an assistant professor of graphic design.

The American Institute of Aeronautics and Astronautics (AIAA) has named **Thomas J. Mueller**, Roth-Gibson Professor of Aerospace Engineering, a fellow in aerospace sciences. A member of the faculty since 1965, Mueller is a leading researcher in the complex flow phenomena present at low Reynolds numbers and is well known by the aeronautics community as an exceptional experimentalist who has made significant contributions to his field.

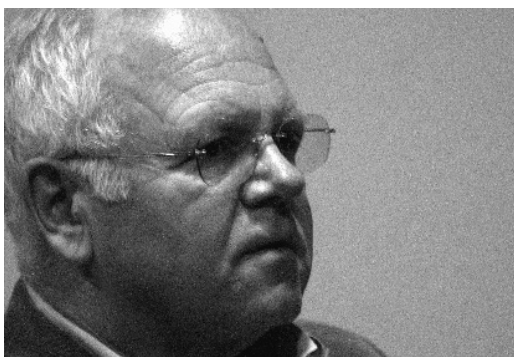
The **Gigot Center for Entrepreneurial Studies** is ranked 23rd nationally among entrepreneurship programs, according to a survey of college and university business schools by U.S. News & World Report. Overall, the MBA program remained among the top tier in the U.S. News rankings at

The center is directed by **James H. Davis**, associate professor of management, and offers internships, sponsors several business plan competitions, operates a small business incubator, and provides a broad-based entrepreneurship curriculum.

Scott P. Mainwaring, Eugene Conley Professor of Political Science, has been appointed to a five-year term as director of the Kellogg Institute for International Studies. He is a longtime faculty fellow of the institute and previously served as its director from 1997 to 2002.

Boldizsár Jankó, assistant professor of physics, has been nominated for a 2004 Wired magazine Rave Award. A member of the faculty since 2000, his research focuses on a wide variety of phenomena associated with highly correlated electron systems. Janko and his research team are recipients of a \$1.8 million nanoscale interdisciplinary grant from the National Science Foundation to support the development and creation of manmade materials aimed at performing extremely fast functions in computers of future generations.

Paolo G. Carozza, associate professor of law, has received a Fulbright grant to teach comparative human rights law at the University of Milan in Italy during the 2004 fall semester. Carozza joined the Law School and the Center for Civil and Human Rights in 1996. He teaches and writes on international law, international human rights, European and Latin.



Robert Dunn observes as his student, senior Lauren Krietemeyer, makes an in-class presentation to fellow engineering students. **Photos by Bryce Richter.**

DIVERSITY

Front-line staff members see bright notes, and c

In attracting a more diverse undergraduate student body and fostering a multicultural community, Notre Dame is served by a network of professionals who create a supportive environment that begins with the recruitment process and carries through to Commencement.

On a crisp afternoon in early April, these staff members faced a set of conflicting realities: While the national sports news media was reporting on a racially insensitive comment made by a famous alumnus, the University had just sent acceptance letters to the second largest number of minority students in its history. If a sports analogy is in order here, these staff members were keeping their eyes on the ball alright. But it was the game in the classroom and in the undergraduate admissions offices that they were watching.

Five of these staff members—Gil Martinez of Undergraduate Admissions, Mel Tardy of First Year of Studies, Iris Outlaw and David Moss of Student Affairs and Heather Rakoczy of the new Gender Relations Center—discuss the challenges they and Notre Dame students face, and the improvements they believe they are affecting.

Profiles by Gail Hinchion Mancini



Gil Martinez, assistant director of admissions, takes a break from fielding phone calls last week, just after applicants learned whether they had been accepted to next year's freshman class. *Photo by Lou Sabo.*

Gil Martinez: helping recruits envision potential, not barriers

When Gil Martinez is recruiting prospective undergraduates, George Adelo is on his mind.

A Santa Fe, N.M., lawyer and Notre Dame graduate ('75 B.A., '78 J.D.), Adelo met Martinez when Martinez was a high school senior with intentions of becoming a police officer or joining the armed forces. A Santa Fe native himself, Martinez was on the path to becoming the first male in his family to graduate from high school, but college never seemed an option.

Adelo identified Martinez's potential and led him through the process of taking SATs and applying to Notre Dame, where he was named a Notre Dame Scholar. A 1984 graduate, Martinez, assistant director of admissions, also holds a degree from Harvard University's master's in education program.

Martinez's wish: If only every student could have a guardian angel like Adelo. Or that he himself could be that angel for everyone he recruits.

Every year Martinez receives applications from students who remind him of himself: the first in their families to attend college, the first to move far from home to do so.

When they leave home, he says, they seem to carry with them a mantra of doubt that comes from within, but that also is echoed by their family and their community.

Martinez is among graduates from minority groups who see a vastly different Notre Dame today than he did as an undergraduate. "For one thing, when I was here in 1980, 75 percent of the students were male." He did not understand the ins and outs of attending college whatsoever. But he fit in, he says, just by being a guy. "Imagine what it was like for a Hispanic female then!"

He had planned to be a doctor, a common goal of a minority student whose family tends to understand success in such terms. "By senior year, I was just tired of the pressure of trying to succeed, to do well by the family. I took a year off and never went to medical school." He credits the Notre Dame faculty for working with him to question that career choice, and he credits Notre Dame for building better support systems for students like him.

Martinez worked in Santa Fe for a few years, then returned, joining Notre Dame's admissions office. In 1993 he stepped out of this work for nine years, pursuing but eventually interrupting studies to be an ordained Jesuit.

Assigned as an assistant principal of St. Xavier High School in Cincinnati, Martinez witnessed a tense urban version of the barriers that African American and Hispanic high school students encounter in trying to realize their academic potential. He sees these obstacles still, often manifested in students who dream of careers like engineering but who have no one to advise them about the high school courses that will prepare them for such careers.

If there is a surprise about his recruiting work, Martinez says it's the amount of counseling he does with students whose credentials may never meet Notre Dame's requirements. "I just want them to think about going to college—any college," he says.

At Notre Dame, he coordinates the review of all applicants from Texas and Arizona, and reads every Hispanic student's application regardless of what state he or she lives in. He verifies anecdotal evidence that an increasing number of minority applicants aren't first-generation college students, but the suburban children of professionals. Those students seem to be having an easier time. Those aren't the applicants who most tug at his heart.

"I want that student who hasn't had the same opportunity that his or her peers have had," he says. "They're the ones who are going to be the trailblazers for their communities."

Mel Tardy: student involvement signals change

Mel Tardy paints a wonderful portrait of himself as a smart but classically unaware 18-year-old whose mother's guiding hand landed him at Notre Dame. "I had a cousin who had played football here. I think my mother understood Notre Dame's values. I wanted to go to University of Wisconsin-Madison with my friends, but I came here to make her happy," he laughs.

Tardy's parents are graduates of Xavier University in New Orleans. Accomplished musicians, they were the first African-Americans to perform with the New Orleans Opera.

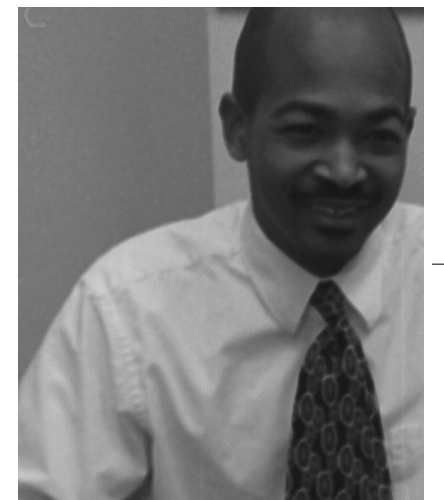
Tardy arrived in 1982 and changed majors from engineering to premed to studio art through a series of decisions he relates to youthful naivety. "I picked engineering because I was good in math. Then I picked premed because I liked biology. But I had no idea what an engineer did. And I only knew one physician—my doctor back home." As an advisor in First Year of Studies, Tardy's history is useful for students who themselves may be picking majors for unsound reasons.

Tardy has his stories about adjusting to Notre Dame's predominantly white environment in the early 1980s: For example, deciding who to take to a dorm dance was an insurmountable challenge when there were few African-American women around you and you weren't sure the social mores of asking a white woman.

If there is an incident that illustrates the pe Notre Dame, it was the day in 1990, during T Admissions Office staff after completing Notr occur that weekend—a major recruitment eve color to campus to acquaint them with the Ur weekend's Thursday opening, minority studen protest the University's perceived lack of resp

"Yes, I certainly felt divided loyalties," Ta they asked me, 'How can you recruit people v the importance of recruiting. Recruitment is a

Tardy worked with the admissions office f First Year of Studies in 1997. The infrastru improved since the 1990s sit-in, and the multi Studies staff reflects that growth, Tardy says. Balfour-Hesburgh Scholars Program, Tardy be system that addresses such issues for a select ; four weeks, students take noncredit classes in on such college survival skills as goal setting, learning strategies. The way that students fron into student leadership roles as club and stude



Mel Tardy walks a freshman through decisio *Photo by Lou Sabo.*

Dame's improved multicultural environment,

The other measure, he says, is seeing majo might normally be considered "minority." As student club Voices of Faith gospel choir, Tarc who want to be a part of that world. "Students the fashion show, for Voices of Faith. Students

Iris Outlaw and David M holistic approach

Iris Outlaw may never have predicted this was then called the Office of Minority Studen she was an undergraduate participant in Indiar student programming.

At a town hall meeting in January comme Justin Brandon—a white male—voiced an opi affirmative action is really doing what it's sup to give up the most will be white males. We n about giving up, for the right reasons."

Says Outlaw: "That really touches my hea

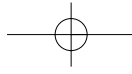
"More Notre Dame students are comment Dame is less diverse than they're used to," she students want to be involved in speaking up. I be allies."

That seems to touch her heart as well.

As director of Multicultural Student Progr Services (MSPS), Outlaw oversees a variety o for building cohesion within Notre Dame's st

Among them, her office supports student ; to establish organizations addressing multicult were nine clubs. Now there are 21, with agenc

From her office in the Intercultural Center



STORIES

Members Challenges

ersonal conflict of being African-American at 'ardy's first year as a member of the re Dame's MBA. Spring visitation was to nt that brings more than 100 applicants of niversity. On Wednesday before the nts held a sit-in in the registrar's office of xect for them and diversity issues.

ardy says. "I understood the students when who won't feel welcome?" I also understood way of changing the face of Notre Dame."

for seven years before joining the staff of the ire for Notre Dame students has vastly icultural nature of the of the First Year of Every summer, as part of the staff of the comes part of a First Year of Studies support group of incoming minority students. For math and science, composition and a class , time management, problem solving, and n the Balfour Scholars program have stepped nt government leaders is a measure of Notre



ons about her sophomore year schedule.

he says.

ority students begin to step into worlds that faculty advisor and trumpet player for the dy has seen an increase in majority students s are stepping out of their comfort zone, for s are wanting a more diverse experience."

Moss: insisting on a

s day 12 years ago, when she took over what it Affairs, nor certainly 31 years ago, when na University-Bloomington's multicultural

emorating Martin Luther King, Jr., senior inion, paraphrased by Outlaw as, "If pposed to be doing, the group that will have eed to think

art."

ting that Notre ie says. "White They want to

rams and of approaches dent body.

roups that want tural issues. When she started in 1991 there das ranging from social to political.

r in LaFortune, Outlaw describes a mission



Moss

that includes both majority and minority students and asks the question: "What kind of leadership are they going to be able to show *after* they graduate from Notre Dame?"

"If universities are about educating students, we need to do it holistically," she says. "We need to ask, 'What kind of citizens—global citizens—are we educating?' It's our charge to help students gain excellent interpersonal skills—students who can move outside their comfort zone."

The University took a step six years ago that reflects this holistic philosophy. Patty O'Hara, then vice president for student affairs, asked David Moss, who was completing a doctorate in psychology, to create a freshman program that would foster dialogue about issues of diversity.

The two-day practicum is now part of the freshman physical education requirement that covers life skills. Run primarily by student leaders trained by Moss, now assistant vice president for student affairs, the sessions begin by providing information and by requiring a personal statement on a diversity issue, then end with small group discussions. Moss points to the persistent need for incoming freshmen to question affirmative action and to air and review the misconception that minority students here "are not eminently qualified."

As a measure that Outlaw's observation is correct—that Notre Dame students increasingly value diversity—Moss says "the number of students who sign up to be peer leaders has grown exponentially."

Notre Dame students fall into one of two groups, Moss notes. "Some students recognize Notre Dame is homogeneous. They're not surprised by it, or motivated to make that change," he says. "Other students have the desire to make a change. But they don't know where to put their energies."

As pleased as Moss and Outlaw are that the demand for dialogue and discussion has grown, both must work to coax students into directing their energies without cheating their studies.

Outlaw's staff has built an infrastructure that includes counseling, retreats, interracial forums and networking lunches. Increasingly, Outlaw and her staff focus their own efforts toward developing leadership activities that emphasize high academic achievement and setting high personal goals. In the Building Bridges program, freshman students of color and international undergraduates are paired with faculty and administration mentors during their first year, with the intention that the relationship will continue throughout the students' four years at Notre Dame. Career and professional seminars assure that students are aware of all University services—the Career Center, for example—and all their options, such as undergraduate research grants and research fellowships.

In one of her earlier decisions 12 years ago, Outlaw discontinued a special multicultural student volunteer program in favor of using the Center for Social Concerns. "We want our students of color to use everything on campus," she says.

And if everyone on campus wants to be involved in MSPS? All the better.



Casual Corner representative Christina Erdes, right, discusses strategies for professional dressing with junior Katrina Picon and Iris Outlaw, director of Multicultural Student Programs and Services. The presentation is one of several MSPS arranges as they urge students to invest time in internships and undergraduate research. A concurrent seminar for men was occurring a floor above in the LaFortune Student Center.

Photo by Matt Cashore.



Heather Rakoczy talks about the Gender Relations Center, which will open in LaFortune Student Center in fall. **Photo by Bryce Richter.**

Heather Rakoczy: starting from scratch to address gender issues

Heather Rakoczy may not know what the new Gender Relations Center is going to look like when it opens in LaFortune Student Center next fall. But with a disarming smile and a quick laugh, she bats away ideas about what it won't be.

It's not a secret new ploy to reduce student alcohol consumption, or a way to put an end to talk about coed dorms. "It's not about parietals," she says. "It's never going to be about parietals."

One thing the center *is* something long overdue: a much needed new leg on a table of services that Rakoczy sees as addressing race, class, gender and sexual identity. "What the University has not established is a body to address how gender operates in light of the Catholic tradition at Notre Dame," she says. "The center would use the lenses of gender and Catholicism to investigate how to build relationships between women and men in this community.

"There's a lot of disconnect between women and men. Women are still finding a place," she says.

Rakoczy, rector of Pangborn Hall since 1998, has been running at full speed since early March, when Rev. Mark Poorman, C.S.C., vice president for student affairs, announced that a center would open and that Rakoczy would be its part-time director. Since then, she says, she has received almost daily inquiries about her background and her vision for the center, as well as overwhelming support from the community.

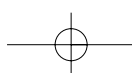
A 1993 graduate, Rakoczy earned her master's of divinity from Vanderbilt University and undertook a broad range of social service and ministry experiences before returning to Notre Dame as a rector.

In recent years, as students petitioned Student Affairs and the Campus Life Council with a proposal for a gender relations office, Rakoczy was gaining a reputation as someone who already was making things happen. A Pangborn student, Mayra Gomez, approached her in fall to be faculty advisor to Notre Dame's first feminist student organization. A Feminist Voice developed wings first in Pangborn and, with Student Affairs' approval, as an official club. Rakoczy also has provided staff training in handling how gays and lesbians reconcile their sexual orientation with their faith.

As students researched ways to form a center, they learned that most top-ranked universities already had centers, although they tended to be women's centers, often established in the immediate wake of a transition to coeducation. Notre Dame, it seemed, could use its late start to incorporate lessons learned since coeducation: hence, the concept for a center serving both women and men.

Rakoczy sees one of her early challenges as harnessing the enthusiasm she's seeing today and turning it into volunteerism. With so little staff, the center's agenda will be shaped in part by those who can contribute their energies.

Whatever the initial focus, Rakoczy says, "We need a place to start conversations about the weighty issues, like sexual assault and eating disorders, and also the more proactive issues, like 'what does healthy dating look like at Notre Dame?'"



COMMENCEMENT NEWS

10 distinguished figures to receive honorary degrees

Ten distinguished figures from business, law, education, social service will receive honorary degrees along with principal speaker Justice Alan Page at Commencement exercises May 16.

Page will share the platform with degree recipients:

JUDGE JOSÉ A. CABRANES of the U.S. Court of Appeals for the Second Circuit and a former U.S. District Judge for the District of Connecticut. A native of Puerto Rico, he has chaired two major Hispanic civil rights organizations, practiced in a New York City law firm, taught international law at Yale and Rutgers University, and served as special counsel to the governor of Puerto Rico and as head of the Commonwealth of Puerto Rico's office in Washington.

SISTER ANITA DE LUNA, MCDP, is assistant professor of religious studies and director of the Center for Women in Church and Society at Our Lady of the Lake University in San Antonio. De Luna is a member of the Missionary Catechists of Divine Providence and served for 10 years as the community's superior general. She was the first Latina elected president of the Leadership Conference of Women Religious and the first Mexican-American woman to earn a doctoral degree in Christian spirituality.

JOHN L. HENNESSY is president of Stanford University and a research pioneer in RISC (Reduced Instruction Set Computer), a technology that has revolutionized the computer industry. Hennessy previously served as Stanford's provost, dean of the School of Engineering and chair of the computer science department and is the principal author of two leading books on computer architecture and design. His own RISC research led to the cofounding of what is now MIPS Technologies, a multi-million dollar company that designs microprocessors.

ELAINE KIM, professor of Asian American studies at the University of California, Berkeley and associate dean of the Graduate Division, also is an outspoken advocate for women and the Asian and Korean communities. Kim has served on the President's Commission on Women in U.S. History and is cofounder of Asian Women United of California, the Oakland Korean Community Center, and Asian Immigrant Women Advocates. She is the coeditor of four books, most recently "Fresh Talk/Daring Glazes: Issues in Asian American Visual Art."

TERRENCE J. MCGLINN, an alumnus and member of Notre Dame's Board of Trustees since 1994, is president and owner of All Star Distributing Company, Inc., a central Pennsylvania beverage distribution company, and general partner of Walnut Street Associates, a private investment partnership. He also is chairman of Colonial Oaks Foundation, a Reading, Pa.-based charitable organization, and of the Reading Hospital and Medical Center. He and his wife, Barbara, have been generous benefactors of the University, providing gifts to underwrite the Mendoza College of Business and McGinn Hall, a women's residence. He also serves as a Fellow of the University, the governing body that elects trustees, adopts and amends the bylaws, and is specifically charged with maintaining Notre Dame's Catholic character.

REV. JEROME MURPHY-O'CONNOR, O.P., a Dominican priest, is professor at the Ecole Biblique et Archeologique Francaise in Jerusalem and a regular visiting scholar in Notre Dame's summer programs. Father Murphy-O'Connor is a leading authority on freedom, grace and sin in the work of St. Paul and is author of 14 books including "St. Paul the

Letter-Writer: His World, His Options, His Skills," "Paul of Tarsus: His Story," "St. Paul: A Critical Life," and "What is Religious Life?"

HOMER A. NEAL, a high energy physicist at the University of Michigan, participates in the DZERO collaboration that in 1995 discovered the top quark. He holds the Samuel A. Goudsmit Chair in Physics and is director of Michigan's ATLAS Collaboratory Project. Formerly vice president for research and chair of the physics department, he served during the 1996-97 academic year as Michigan's interim president, the first African-American to lead the university.

JAMES D. SINEGAL is founder, president and chief executive officer of Costco Wholesale Corp., an Issaquah, Wash.-based warehouse club retailer with 430 stores, 92,000 employees and some \$50 billion in annual sales. With more than 40 years of experience in the retail mass merchandising field,

he has a reputation for creating a company culture in which worker loyalty is rewarded with generous wage and benefit packages.

ROXANNE SPILLETT is president of Boys & Girls Clubs of America since 1996, the nation's fastest-growing youth development organization with 3.6 million members and 3,300 affiliates. During her presidency she has emphasized serving underrepresented children in nontraditional environments, including public housing and Native American lands. She has taught MBA courses at Notre Dame.

PETER TANNOCK is vice chancellor of the University of Notre Dame Australia, a rapidly growing institution located in Fremantle and the only private Catholic university in Western Australia. Though there are no financial or legal ties between the institutions, several Notre Dame faculty, including President Rev. Edward A. Malloy, C.S.C., serve as trustees and governors of the school.

Top Latino colleges

continued from page 1

individual students vary, we strive to create a sense of community at Notre Dame through maintaining a balance among education, research and outreach. We have established a minor in Latino studies and offer a variety of classes in fields including political science, sociology, theology, literature, history and art. We provide a wide array of research and experiential learning opportunities, and we sponsor or subsidize a gamut of cultural and academic events for students—many initiated by the students themselves."

Founded in 1987, Hispanic Magazine is the premier publication for Hispanic Americans, with a focus on business, careers, politics, culture and stories about people and issues of interest to Hispanics. The March issue ranked Stanford University first, followed by the Massachusetts Institute of Technology and Harvard University.

DISTINCTIONS

The University offers its thanks and congratulations to those observing employment anniversaries. **Janice E. Trethewey**, accounting and financial services, and **Elizabeth Whittaker**, Morris Inn, are celebrating 30 years of service.

Gina Bixler, University Press; **Patricia A. Dillman**, food services; and **Robin J. Lisek**, University Libraries, have been with the University for 25 years.

Observing 20 years of service are **Joe W. Davis**, building services; **Lisa Hammer**, financial aid; **Patrick L. McCauslin**, landscape services; and **Loretta D. Newsom**, Hammes Bookstore.

Barbara J. Hunter, Alumni Association; **James C. Kirksey**, chemical engineering; **Debra J. Kleiser**, executive MBA; **Leanne Knapp**, security; **Colleen A. O'Connor**, business operations; **Judith S. Phillips**, National Institute for Trial Advocacy; **Timothy S. Stergios**, security, and **John M. Strickland**, athletics, have been with Notre Dame for 15 years

Marking their 10-year anniversaries are **Heather L. Fairres**, food service-vending; **William D. Farmer**, maintenance; **Mark L. Hummel**, utilities; **Laura J. Jones**, catering; **Teena M. Lutomski**, radiation laboratory; **Christopher R. Runyon**, general services; **Mary Beth Sosa**, building services; **Bernard W. Szumial**, research and sponsored programs accounting; and **Timothy S. Virgil**, security.

WHAT THEY WERE DOING



Members of the Notre Dame community observe Holy Week last Tuesday with an outdoor procession of the Stations of the Cross that began at Sorin Hall. *Photo by Matt Cashore.*

SINGULAR THOUGHTS

Trends with trees mirror societal change

To American Studies professor Tom Schlereth, there is little distinction between his love of trees and his love of scholarship. He is writing a botanical, landscape, ecological, and cultural history of North America arboreta from 1700 to 2000 called "Keepers of Trees." He charts the progress of his research at <http://www.nd.edu/~tschlere/Tjschlereh/Keepersoftrees.htm>. In honor of Arbor Day, April 30, Schlereth talks about good trees to plant, and how trees are good for us.



Schlereth. Photo by Wendy Clauson Schlereth.

Q: Will you plant a tree on Arbor Day?

A: Yes, as I have done each year on our Granger farm since 1983. This year they will be several Noble firs, trees native to the Pacific Northwest. Since the 2000 millennium I have also tried, weather permitting, to plant or transplant a dormant deciduous tree on the last day of the old year and another on the first day of the new one.

Q: What kind of tree can an urban or suburban dweller plant and know, reliably, that it will be around next year and for decades to come?

A: For the urban lot in our region, I would suggest the paperbark maple *Acer griseum*, the cornelian cherry *Cornus mas*, and the little-leaf linden *Tilia cordata*. For suburban sites, the Korean fir *Abies koreana*, the American fringe-tree *Chionanthus virginicus*, and the dwarf cultivars of

the Japanese white pine *Pinus parviflora* all do well in northern Indiana. Nurseries that sell these trees can be easily located by subscribing to the Plant Information Online Program plantinfo.emu.edu of the Andersen Horticultural Library of the Minnesota Landscape Arboretum.

Q: Does horticulture change with the times, like fashion?

A: Yes. For example, urban and suburban housing makes use of yards far smaller than the groves of our oldest local trees. As a result, we see the increasing proliferation of slow-growing, winter hardy, colorful dwarf cultivars that do not overgrow the smaller yard. Some coniferous examples of these trees are growing in raised island plantings in front of the Main Building.

Q: As a cultural historian, can you comment on whether the significance of trees has changed?

A: Traditionally trees have served humankind by maintaining the global carbon balance, by providing us with a renewable economic cornucopia of resources, by inspiring our literary and artistic creativity, by symbolizing many of our spiritual and cosmological beliefs, by reminding us of our ancient coevolutionary habitats, as well as by dwarfing our egos by being the tallest, among the oldest, and most massive living organisms on earth.

As for new developments in arboriculture, there is an expanding debate, by individuals and institutions, whether it is best to emphasize planting native species or imported exotics. Paralleling this argument is a global one centering on the question: "Who owns the trees and other plants discovered in

another country? International timber brokers? Plant hunters for pharmaceutical cartels? Arboreta in other nations? Aggressive commercial nurseries? Or, the people in the country where the plants were first found?"

In another context, contemporary arboreta, since the terrorist attacks of Sept. 11, have expanded their horticultural therapy programs on-site and at various medical facilities. In the days following the attacks on New York and Washington, they also experienced an enormous increase in visitors who came searching for "a safe haven," "a peaceful sanctuary"—in short, a restorative landscape in a world of international chaos.

Q: Notre Dame has a fantastic collection of trees. What would you tell visitors about our tree presence?

A: First, I would note that the generic rural, planted, residential campus such as ours is an American contribution to the history of landscape architecture. Then I would take them on a walking tour of the central campus following the route that Barbara Hellenthal, our curator of the Greene-Nieuwland Herbarium, plotted in the book, "Trees, Shrubs, and Vines on the University of the Notre Dame Campus," to which Robert MacIntosh, professor of biological sciences, and I had the opportunity to contribute essays. On tour, I would single out some of my favorite specimens: the magnificent weeping European beech in front of Walsh Hall, the towering European larch by LaFortune, the split-leaf ginkgo, and the always graceful bald cypress across from the Basilica, which was planted the year I joined the faculty in 1972.

FYI

Last call to honor fellow staff members

The annual staff recognition luncheon isn't until August. But Rick Murphy, organizational consultant for Human Resources and awards coordinator, is announcing "last call" for those who would like to nominate someone for one of three prestigious Awards of Excellence.

Three distinct annual awards recognize staff members who have made significant contributions to the University's mission and who exemplify the spirit of the University.

- **The Presidential Award** is given to individuals who exemplify outstanding performance to the University and the surrounding community. As many as five awards are given each year.

- **The Notre Dame Award of Merit** is given to staff members who exemplify exceptional performance to the University community. More than a dozen employees are recognized with this award.

- **The Team Irish Award** is given to staff members for a value-added collaborative effort that creates positive results for the department and University. As many as four teams receive this annual award.

Nomination forms for these awards are available by contacting the Organizational Effectiveness Group at 631-8709 or prister.2@nd.edu. Nomination forms also are on line on the Human Resources Web site <http://www.nd.edu/~hr>. Click the "forms" link and follow the page to the very bottom. The downloadable forms may be submitted as an email attachment to prister.2@nd.edu, mailed to HR at Grace Hall or faxed to 1-6862.

A nine-member committee will review the nominations and recommend winners, Murphy says.

Winners will be announced at the Awards of Excellence luncheon Aug. 11. Also acknowledged during that event are winners of Spirit Awards, a year-round recognition program that lauds noteworthy acts of employee kindness, cooperation and initiative.

Nominations for that award also are at <http://www.nd.edu/~hr>.

Understanding the blues

Find out how to define depression and clarify the difference between clinical depression and the "blues," through a webinar from 11:30 to 1 p.m. April 27. This on-line seminar can be accessed at your desktop, or viewed in Grace Hall Room 700. Register online at <http://iLearn.nd.edu> or by phone at 1-5777.

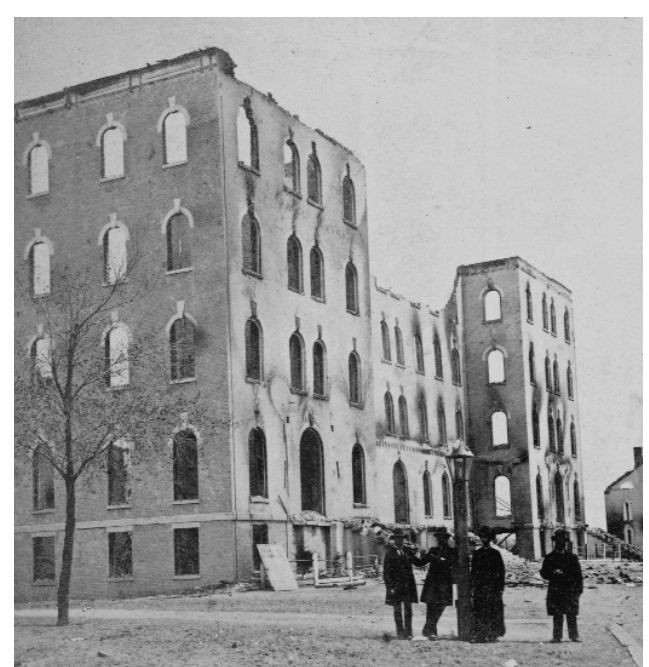
Buying a first home?

First-time home buyers can find advice and meet fellow seekers April 29 during one-hour seminars at noon in LaFortune's Notre Dame Room and 6 p.m. in 234 Grace Hall. Representatives from a mortgage company and a Real Estate firm will fill you in on the details of working with a Realtor and mastering mortgage terminology. Lunch and dinner will be served. Register by phone at 1-5777 or at <http://iLearn.nd.edu>.

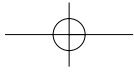
Music, theatre abound

It's spring concert season for many University musical organizations, and most performances are free. ND Chorale and Chamber Orchestra will perform at 8 p.m. April 21 in the Basilica. The Voices of Faith gospel choir will have its spring concert at 7 p.m. April 23 in Mount Carmel Church in South Bend. Also that night, ND Collegium Musicum will perform at 8 p.m. in Moreau Seminary Chapel. At 3 p.m. April 25, in the Rotunda, the ND University Band and ND Brass Ensemble will play. The Symphonic Band and Symphonic Wind Orchestras perform at 8 p.m. April 26 in Washington Hall. The ND Jazz Bands will perform at 8 p.m. April 27 in the Notre Dame Band Building. The Symphony Orchestra ends its season at 8 p.m. April 29 in Washington Hall. A student production of the drama "Arms and the Man" will run from April 21-25 in Washington Hall.

FROM THE ARCHIVES



On April 23, 125 years ago, fire of an undetermined origin destroyed the Main Building. The shell that remained was captured here by South Bend photographer James Bonney. In one of the University's most dramatic chapters, its replacement was reconstructed by the end of August that year. Photo provided by Charles Lamb, University Archives.



BACK STORY

High-volume preparation is secret to food service success

By Gail Hinchion Mancini

It's mid-April, so at the bakeshop in the Food Service Support Facility, they're baking Commencement cakes: 1,000 of them, to be assembled Commencement weekend into two massive cakes, one for the Joyce Center, one for North Dining Hall events.

Don't worry about this group having enough freezer space to store 1,000 cakes. Their walk-in unit is approximately the size of the Rolfs Center. Few forklift drivers bundle up as thoroughly as Paul Hendershot and Russ Fowler, who spend much of the day in there.

Built in 1996 on the northern edge of campus behind the Notre Dame Credit Union, the facility has allowed an explosion of on-campus dining options including what are referred to as "cash operations": DeGrasta's, Greenfields, Sbarros, Subway.

With a \$900,000 inventory that turns over almost monthly and a staff of 50 full- and part-time employees, FSSF espouses the principle that for an operation as large as Notre Dame's, home cooking is helped along by a little back-end volume planning. Each year, 20,000 pounds of fajita beef, 1,900 pounds of taco meat, and 40,000 gallons of fresh salsa make their way as dining hall delicacies. Many of the pasta dishes, to-go sandwiches, and cut deli meats also begin here. Volume doesn't mean freeze-dried: Those vegetables in your soup are fresh-cut—to the tune of 49,000 pounds a year of carrots and 7,000 pounds of celery and cabbage.

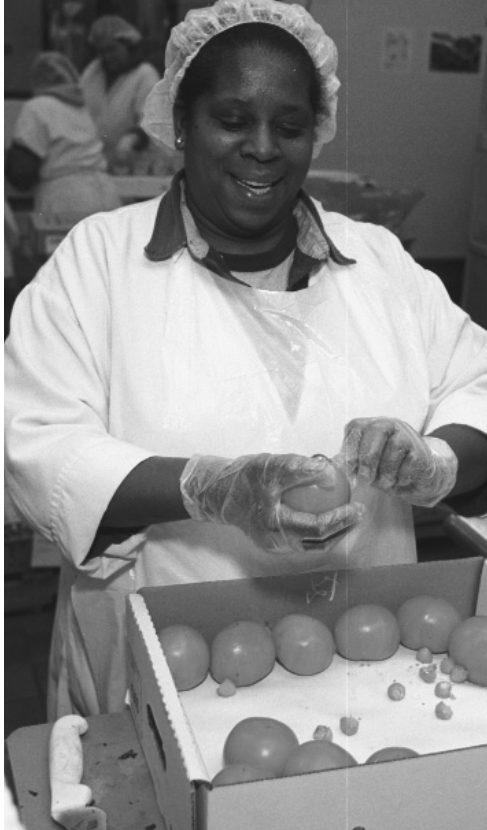
If there's a way FSSF can provide backup, or start-up, for an on-campus food operation, they'll do it. That means that the University holds a licensing agreement with Subway, for example, that allows FSSF to bake bread and to provide shredded lettuce and chopped tomatoes.

How far this staff takes preparation is the choice of the on-campus client. The bakery produces 3.5 million portions a year. Some of their creations arrive on campus fully baked. Some arrives as dough, to be baked for that fresh, hot sensation. Some is so complex a pastry chef must assemble it as diners watch.

Certain statistics point to what Operations Manager Todd Hill says is a definite trend toward healthier eating: this year's demand for 375,000 plain bagels, for example. In the past year, the FSSF staff prepared some 23,500 individual packaged tossed salads, nearly 70,000 pounds of bulk tossed salads and more than 300,000 pounds of cut vegetables. FSSF also is the area's premier center for safe food preparation. In addition to regulation inspections by the county health department, General Manager John Glon arranges tours for health inspectors, who have few other opportunities to see a state-of-the-art facility.

For all the big machines and bigger freezers, there's a lot of creativity being expressed here. After creating the Commencement cakes, University Pastry Chef Don Wehlann, his staff, and master cake-maker Tracy McCaster will launch into wedding cake season. They makes three to five wedding cakes per weekend during summer for on-campus ceremonies. Sometimes, they get to take a break, and just make a Bear in the Big Blue House cake, or a cookie bouquet.

Photos by Lou Sabo.



Clockwise: Mary Hazzard, processing room supervisor, cores tomatoes that will see life in everything from salads to Subway sandwiches.

Amber Smith is part of a team of to-go sandwich preparers. They ready up to 2,000 sandwiches a day Sundays through Thursdays.

Tracy McCaster is a full-time cake decorator who rarely finds any downtime.

John Hans, foreground, and Howard Busfield prepare flank steaks for Legends and the dining halls. Both are longtime butchers who say that, Mad Cow Disease notwithstanding, meat preparation has grown safer during their careers.



Danny Bloss advises that you drench your pasta in cold water if you're not going to serve immediately. With the quantities he cooks, cooling takes a hose and a bucket.

Mary Szabo keeps up with the University's appetite for simple sugar cookies.

