

WPI JOURNAL

WINTER 1999

A UNIVERSITY'S BEST FRIEND

The everyday life of campus computing





Editor's Note

They delight, amuse, enlighten and frustrate. They will follow our commands, but sometimes leave us shaking our heads or our fists. They are patient and faithful servants who thrive with just a little care and attention, but who can occasionally catch a virus or two. And though we might swear that things were easier before we had them, we know our lives would not be as rich or rewarding without them.

Perhaps it's not surprising that the same descriptions can apply to dogs and computers, for like canines, computers seem programmed to make us happy. Across the WPI campus, hundreds of computing machines hum eagerly, waiting to answer their owners' beck and call. Their owners have taught them some remarkable tricks. On the pages that follow, you will get a computer's-eye view of how Information Age technology has transformed life and work on our campus.

5:51 a.m.
Ready when you are!

Ideas can spring up at any time, and before this one gets away in the heat of early morning business, Bradley Hosmer '61, a consultant in Concord, N.H., fires off an e-mail message to his alma mater. Modern computer tools have changed our perception of time and geography, and forever altered the way we live and work.

THE INDISPENSABLE TOOL

By Edward Alton Parrish

With the ubiquity of the Internet today, it's easy to forget how brief the life of this remarkable network of networks has been, or how explosively it's grown. In just three decades, the Net has evolved from an experimental network with four mainframe computers to a global spider's web of networks and backbones that links some 20 million host computers and more than 140 million individual users in 150 nations (according to one reliable estimate).

The Net's evolution from curiosity to essential tool mirrors the remarkable rise in the importance of computers and networks in the daily life of WPI. In 1969, when the Internet began (and when the WPI Plan was conceived), WPI owned just a few computers. The largest was in the new Worcester Area College Computation Center (WACCC), which ran programs for WPI and a number of area colleges. The first personal computers arrived on campus in the late 1970s, and by 1988 there were 800 in offices and general access labs.

In 1988, WPI built a high-speed campus network, giving most faculty members and administrators access to each other and to the Internet. Since then, things have been growing at a feverish pace. Today, computers and networks are indispensable elements of work and life at WPI, as you will see in the stories on the following pages. They play critical and growing roles in teaching and learning and are vital tools for our administration. By making possible instant,

low-cost global communication and giving users access to a vast universe of information, they have transformed the way business gets done on our campus—usually for the better.

Not surprisingly, the University has invested heavily in its information infrastructure and in tools that make it easier to work, communicate, teach, do research and serve students. Just last year WPI spent over \$1 million on improvements to the campus computer system, primarily to increase the speed of network connections in our residence halls and to build wireless links to our fraternity and sorority houses.

These investments have made WPI one of the most technologically sophisticated universities in the country. Last year, *Yahoo! Internet Life* magazine named WPI the No. 10 "most wired" campus in America. The magazine, in conjunction with college guide publisher Peterson's, surveyed more than 400 highly selective colleges and universities to identify those that provided students the greatest access to and benefit from leading-edge computer technology.

WPI's "wired" status should increase still further now that the University has been chosen to be part of an elite group of institutions that will design and test the next generation Internet. The Internet2 project will give WPI access to a network backbone capable of carrying information 1,000 times faster than today's Net. It will be interesting to see what mind-boggling ideas our faculty and students come up with for using all that bandwidth. As Al Jolsen might have said, you ain't seen nothin' yet, folks.

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HOT-WIRING A FRESHMAN CLASS

These days, every college asks prospective students for e-mail addresses. WPI actually does something with them—making the University a leader in the creative use of technology in admissions.

About 45 percent of students who inquire about WPI use e-mail. For them, the Admissions Office plots direct mail and e-mail strategies. "We can target e-mail messages by a number of factors," says Monica Inzer, director of admissions. "These include ZIP code, gender, major, and how the student discovered WPI."

By using such segmented data, the Admissions Office can direct messages about last weekend's football game to, for example, all men from Wisconsin interested in football and physics. If a faculty member in biology and biotechnology will be lecturing in Omaha, admissions counselors can alert prospects interested in biology who live within that particular ZIP code. WPI student volunteers also reach out with messages about their majors and activities.

When a prospective student e-mails WPI a question or comment, an admissions counselor responds within 24 hours. That policy often means answering 70 to 80 messages per day (up to 200 when an application deadline looms), but the hard work pays off, Inzer says.

The personal communication that e-mail makes possible often generates responses from students who give WPI another look because of the electronic attention they've received. It is also part of the reason that applications to the University reached record numbers during each of the past two years, Inzer says.

And then there's the Web. WPI's Web site has an extensive admissions section that guides visitors through a vari-

ety of topics. Updated last summer, it continues to get good reviews. "We encourage kids to check us out on the Web," says Kevin Kelly, associate vice president for enrollment management. "It's available around-the-clock, so they can find information whenever they want it."

As 58 percent of all applicants discovered last year, the WPI Web site is also a good way to save \$60. The Admissions Office, which was one of the first in the nation to put its entire application on the Web, waives the application fee for those who apply online. Inzer is quick to emphasize that "we don't favor Web applications over those that arrive in the mail." Still, Kelly adds, since Web applications go directly into the admissions database, "they save us a boatload of keystrokes."

The Admissions Office hasn't given up on "back to basics" admissions work. Admissions counselors visit high schools, invite guidance counselors to campus, attend college fairs, and host open houses. Since most high schools don't have e-mail yet, staff members have found there's still no substitute for face-to-face contact.

"But it's clear there's no going back," says Kelly. "Electronic communication enables many thousands of people to be out there representing WPI, instead of only six of us. It's a neat way to build relationships."

—Allison Chisolm

THERE'S NO "QUEUE" IN REGISTRATION

Registering for classes at WPI used to mean conga lines of students moving one, two or three steps at a time toward the harried staffers seated at desks in Harrington Auditorium. But thanks to the Internet, that dance is over.

Web-based registration has been available since the fall of 1997, when it was first offered to undergraduates. It was extended to graduate students the following year. By typing in a personal identification number and selecting from a menu of choices, a WPI student can sign up for classes, drop or add courses, pay bills, or find out what graduation requirements remain unfulfilled. It all can be accomplished from anywhere in the world, 24 hours a day, seven days a week, 365 days a year. The switch also benefits faculty members and advisors who may post grades over the secure Web and who have instant access to class

lists and wait lists.

"We are one of a very few colleges to offer full Web-based registration," says Registrar Nikki Andrews. "It's incredible from the students' perspective. They love it."

Andrews says the system is particularly effective and appropriate at WPI because the University's flexible guidelines for majors enables students to tailor their courses to their interests and career goals. With a few moves of the mouse, they can find out which courses are open or get on a waiting list for ones that are filled. "I can register in my pajamas," wrote one happy undergrad.

The implementation of Web registration represents the first phase of WPI's reengineering initiative, which was launched in 1996 to find ways to better serve students, parents, faculty and alumni. "In the past, a student would submit his course requirements and receive his schedule in



three to four months," says Kari Blinn, the former WPI registrar who now serves as reengineering coordinator. "Now that process takes three to four minutes." The time it takes for a student to receive his final grades is equally remarkable. "We went from five days to five hours," says Blinn.

Andrews says doing away with the tension and tedium once associated with registration has reduced stress among her employees, who used to be gearing up or winding down from the hectic days at Harrington every seven weeks. Now, she says, they can give more time to people who come into the office for help or contact them via e-mail. "Everyone is smiling a lot more these days and student satisfaction is at an all-time high."

—Bonnie Gelbwasser

8:00 a.m. | Here's your mail.

Overnight, dozens of messages from prospective students have piled up in Associate Admissions Director Mike Smith's e-mail box. That's but a drop in the bucket compared to what will flash through the WPI network today. By day's end, some 33,000 messages (1.7 gigabytes of information)—about one message every two and a half seconds—will flow through the e-mail server.

CLASSROOMS AT YOU

Learn to manage a company. Develop fire safety plans. Operate information technology systems. Engineer a healthier environment. The best part is, these days you can study these and other disciplines at WPI no matter where in the world you are. The University has embraced distance learning as a natural outgrowth of its excellence in technology. The idea that education doesn't have to take place in a building is as old as Socrates. But with the Internet's capacity to carry text, pictures, video and sound, the entire world has become a virtual lecture hall.

WPI's Center for Firesafety Studies was among the first academic programs of its kind to offer for-credit courses via distance learning. "We offer 21 courses to distance learning students at more than 50 sites in the United States and Canada," says Jonathan Barnett, associate professor of fire protection engineering. "And we have students in Australia and Sweden. At some point, one of our Australian students plans to come to campus to do his thesis. He wants to experience WPI's extraordinary labs and facilities." In the meantime, distance learning saves him an awesome commute.

PictureTel, a teleconferencing system that allows live interaction, and videotapes enable WPI to offer distance

learning for all needs. Students and faculty can also use interactive Internet programs to hold electronic conversations in real time.

Karen A. Lemone, associate professor of computer science, has developed programs that fellow professors may use to enhance courses offered over the Web. Such courses she says, are popular with students who grew up in the Computer Age. Productivity should improve for both instructors and students with features such as "retargeting" and automatic grading. "Retargeting tools enable instructors to create the next version of a class in far less time," Lemone says.

Judith E. Miller, director of WPI's Center for Educational Development, says distance learning may be the great equalizer in education. "Distance learning makes college courses available to people who, for whatever reason, cannot come to campus and take courses during the day."

The lack of human interaction can be a problem with distance learning. Does the fact that you may never meet face-to-face with your

THE LATTER-DAY CHALKBOARD

The first thing I did to research this story was to send someone an e-mail message. That's an act repeated thousands of times every day at WPI, where electronic technology has become a basic building block for professors and students. Course syllabi, homework, reading lists and more are posted on the WPI Web site. Students can access information day or night.

Michael A. Gennert, associate professor of computer science, admits he can't live without technology for library research, for staying in touch with students, parents and fellow researchers, and for managing classes. "I always put my courses on the Web," Gennert says. "The only papers I exchange with my class are a first-day handout and exams. Everything else is electronic."

Electronic learning also tends to be more experiential, providing real-world knowledge. "Traditionally, information is already digested for students," says Judith E. Miller, director of WPI's Center for Educational Development. "They don't have the opportunity to take primary information from the field and make it their own."

Technology changes all that. Students search out primary data and process large amounts. "Technology excels at visualization in a way that static media like textbooks and transparencies can't even begin to match," Miller says. In one class she teaches, students use visualization software to view rotating, three-dimensional models of molecules. This technique allows a more authentic education

based on experience. "It's the difference between surface learning and deep learning," Miller says. "Students take information and process and draw inferences from it. The ability to do that is the hallmark of a truly educated person."

A networked campus improves communication between faculty and students, too. At WPI, even the stage wouldn't be the same without the e-mail connection. Susan Vick, professor of drama/theatre, who directed *Saint Joan* this fall at WPI, doubts she could have pulled off this major production without e-mail. "We notify people about rehearsals, jobs to be done—we even post schedules on the Web," she says. "We use it as a communication device to remind actors, designers and technicians of our artistic visions. We save rehearsal time for rehearsing."

History Professor John F. Zeugner finds that the objective, detached aspect of electronic communication actually frees students to ask more questions. "E-mail has dramatically increased my accessibility to students and their accessibility to me," he says. "I frequently learn things from e-mail that students are too embarrassed to ask or refer to in a classroom setting."

—Arlie Corday

11:13 a.m. | Teach me a new trick.

Chemical engineering Professor David DiBiasio reviews an online homework assignment with Matthew Dion '01 and Bonnie Henderson '01. Computers and networks have added a new dimension to education at WPI, improving communication between professor and student, turning the world into a classroom, and bolstering learning.

professor affect how you learn? "Part of it is communications style," answers Paul P. Mathisen, assistant professor of civil and environmental engineering. "As an experiment, we had two teams work on a proposed highway project. One met normally as a group; the other had no face-to-face contact. The distance-learning group did well; the other group had problems."

Whatever the teaching method, it seems some things never change. "The main thing is being able to work together," Mathisen says. "The only way these students can do this work well is to learn to work well as a team."

—Arlie Corday



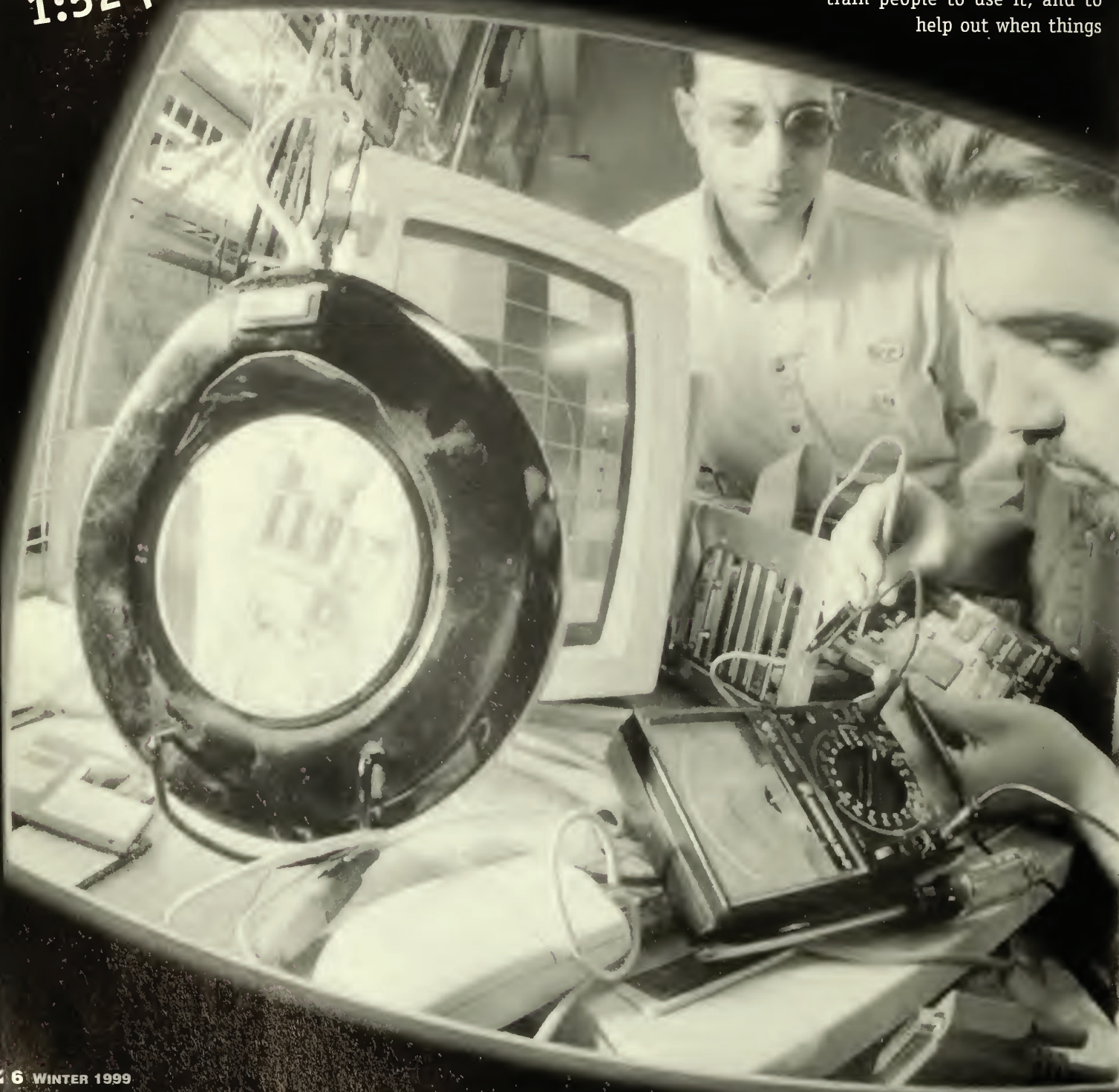
Scott Streater, PC support/hardware technician, left, and Noah Abrahams, PC support technician, are part of a cadre of dedicated experts at WPI who keep thousands of computers and miles of network running, train people to get the most from their machines, and help out when users get in trouble.

1:52 p.m. | Is it a virus, Doc?

THE "i" TEAM

What does it take to become *Yahoo! Internet Life's* 10th most wired university in the nation? According to Tom Lynch, WPI's vice president for information technology, the ingredients include thousands of computers (mainframes, servers, workstations and PCs), hundreds of miles of copper and fiber-optic cable to connect them, and, of course, the latest and most useful software applications to turn them into state-of-the-art tools.

But even the most sophisticated information infrastructure would quickly grind to a halt, Lynch says, without a small army of dedicated men and women to maintain it, to train people to use it, and to help out when things



go awry. Those men and women work in the College Computer Center (CCC), under the command of CCC director Jim Jackson, managing senior UNIX systems administrator Al Johannesen and manager of administrative systems Ben Thompson.

Among the CCC's frontline operations is the Computer Shop, where PC support/hardware technician Scott Streeter, PC support technician Noah Abrahams and a staff of student workers maintain about 2,700 personal computers spread throughout labs and offices on campus. Like old-fashioned family doctors, they make frequent house calls to diagnose and fix problems, often hauling ailing machines back to the shop for surgery.

Keeping WPI's campus network running is the responsibility of network manager Sean O'Connor, who has been busy in recent months upgrading the network backbone to accommodate the constantly increasing demand placed upon it by users on and off campus. Having upgraded connections in every residence hall, O'Connor will soon begin a multiyear plan to replace networking equipment and wiring in every academic building with the fastest technology currently available.

When computers misbehave, the calls go to the Help Desk, WPI's in-house technical support line. Help Desk supervisor Marie DiRuzza, office operations support specialist Kerrie O'Connor, and a staff of more than 15

trained students answer the phones 10 hours a day on weekdays. "The Help Desk started as a student-run effort, but is today a professional service that receives hundreds of calls and e-mails every week—sometimes several hundred a day," DiRuzza says.

She says the nature of the questions she receives indicate that computer users on campus are becoming an increasingly sophisticated lot. That is due, in part, to the efforts of Debbie Babineau, WPI's computer trainer. Babineau offers a wide variety of scheduled classes and workshops on operating systems, e-mail programs, and a host of commonly used software applications. She teaches about 25 sessions in a typical two-month cycle, and offers custom designed training for departments.

In addition to meeting the needs of a constantly growing population of computer users on campus and at two branch campuses, the CCC staff must keep up with the continually accelerating pace of technological change, which requires frequent hardware and software upgrades and puts pressure on the computer staff to keep updating and expanding their areas of expertise. "Keeping up with technology," Lynch says, "can be a full-time job all by itself."

—Michael Dorsey

50% AND GROWING

When Alumni Affairs Director Tina Gorski-Strong '84 checks her mail, she's more likely to turn on her computer than open an envelope. Her experience parallels those of a growing number of WPI alumni—fully half of whom graduated during the last two decades. "I rarely get personal correspondence through the postal service," she says. "Alumni are more likely to pick up the phone or use e-mail."

The immediacy of e-mail opens up communication, she says. "It's an easy way for someone to quickly send news—good and bad. And it's meant greater communication with far-flung alumni around the globe. E-mail is an exciting tool we can use to let alumni know we haven't forgotten about them."

Gorski-Strong estimates that about 25 percent of alumni have e-mail accounts and that about 50 percent have access to e-mail in some fashion. "As a university, we're reaching out in different ways to alumni in different parts of the country and the world," she says. "Technology shrinks these distances. Of course, we'll continue to go out and visit alumni in person, but e-mail helps them feel connected to us between visits."

While Gorski-Strong uses e-mail primarily to respond to alumni questions, she has on several occasions "broadcast"

time-sensitive news to all alums whose e-mail addresses are in the alumni database. This year, for example, when WPI wanted alumni to help prioritize the goals and initiatives in the report of the Planning and Implementation Committee, a message was broadcast to 4,600 graduates.

The centerpiece of electronic communications with WPI alumni is the Alumni Gateway, launched in the spring of 1996. Some 4,800 alumni have used their free accounts to check the alumni database prior to job interviews or sales calls; set up e-mail forwarding addresses; created special e-mail lists for their classes; or made a link to their own World Wide Web home page.

In alumni relations, the future looks more electronic every day. Already, Gorski-Strong says, she spends at least 25 percent of her day at the computer. She may spend even more time there in the future, as the WPI Alumni Association, grappling with ways to keep alumni involved with the University, hopes to increase its electronic outreach. One idea being considered is holding events for regional alumni groups that other grads can "attend" online.

But this new trend does not mean the end of the days of letters, direct mail campaigns and alumni magazines. "I'm acutely aware that not all alumni are connected," she says. "For the foreseeable future, we won't be switching completely to these new ways to reach out. But they do make excellent supplements to what we already do."

—Allison Chisolm



6:44 p.m. | Let's play fetchh.

Gordon Library's computers are tireless retrievers, always ready to comb WPI's catalog, the Internet, and other electronic resources for books, journals, facts and figures users need. They're not always discriminating, but with experienced librarians helping point the way, computers have become indispensable adjuncts to this research library's extensive holdings.

Computers are nothing new at WPI's Gordon Library. The staff has been working with them since 1974, when the library was connected to the Online Computer Library Center database of book holdings for libraries worldwide. "Our first electronically distributed information was the catalog, which we made available over the campus network in 1989," says library director Helen Shuster.

"The Internet, the campus network, the computer and, more recently, the World Wide Web, have transformed the role of the library. In the last four years alone, this technology has enabled us to provide far more information to our users via connections to more and more electronic databases and full-text periodicals. While this has increased our workload, we are now able to provide a much greater depth and breadth of information.

"There's a mass of information on the World Wide Web—some trivial, some vitally important," Shuster adds. "The library's role is to evaluate these resources and provide access to those who support WPI's academic mission. In addition, we focus on information literacy—helping patrons learn more about which resources to look for, where to find them, and

Here's a sample of what's happening at Gordon Library these days:

- Library staff are testing the latest release of Endeavor Voyager, the Web-based information system the library uses. "Gordon Library was chosen to be a test site because of our competent and knowledgeable staff," Shuster says.
- Librarians are actively involved with faculty in a program to investigate electronic submission of theses and dissertations and provide access to them on the Web.
- Electronic resources are constantly being added to the online catalog. Selected current links include the INSPEC bibliographic database for physics, electrical engineering, communications, and computer and information science; the FirstSearch suite of over 40 databases in multiple subject areas; Beilstein, the database of management and business information; and more than 500 full-text periodicals.

While electronic services are constantly being added, "this will not become a 'paperless' library anytime soon," Richardson says. "To a large extent, our patrons still need and use books. People still come here to read and study and work in project groups." In fact, last year the library's main door was entered nearly 215,500 times, 1,831 reserve items were checked out more than 14,550 times, and the Interlibrary Loan office handled over 7,000 requests for books and journals from other libraries.

When it was built in 1967, Gordon Library was designed to hold 200,000 volumes; the collection is now at 260,000. It is projected that the library shelves, as well as the auxiliary storage areas in Founders Hall, will be filled to capacity by 2001.

Shuster notes that the Planning and Implementation Committee (PIC) recently identified support for Gordon Library as an important future goal for the University. At PIC's request, Shuster drafted a library initiative that calls for an endowment that will help offset the increasing costs of print and electronic resources and enable the University to redesign the building.

"We hope," she says, "that an improved building and additional resources will enable Gordon Library to provide the types of services required to support the needs of faculty and students well into the 21st century."

—Bonnie Gelbwasser

WIDE LIBRARY

what to do with them." Christopher Cox, who recently was hired to fill the new position of reference/instruction librarian, is helping expand information literacy to more WPI students and employees.

"So much information is available because of the network infrastructure we have in place at WPI," says Donald Richardson, reference/systems librarian. "Our catalog is online, accessible from anywhere, and we are able to offer access to sophisticated computer resources and support."

The challenges of acquiring and organizing electronic information requires every member of today's library staff to develop new skills and constantly upgrade them. Although they still have a library's responsibility for acquiring, organizing, archiving and ensuring access to information, technology continues to change not only the way they do these jobs, but the jobs themselves.

SILICON-BASED (SOCIAL) LIFE

Greg Snoddy paints a perfect picture of interaction in the Information Age. "Two roommates are playing chess," says Snoddy, director of orientation and student activities. "But there's no table, no board, no chess pieces, and no eye contact between the players. Instead, each is focused on a separate monitor, competing against the computer."

Snoddy knows the challenges of keeping students in touch as well as anyone; his office is the clearinghouse for about 135 WPI clubs and organizations. The mailboxes in the Student Activities Office aren't as full of notes and flyers now that everyone on campus has access to computers, he says. Almost everyone connected to WPI now uses e-mail to get the word out about meetings, elections, programs and events because it's easy, instantaneous and saves paper and time. By pressing a few keys, groups can set their calendars, work out budgets and elect officers. The system is so good that some groups never meet in person.

But communicating via computer isn't what student life is all about. Creating community is, and in-person interaction is still the best way to achieve that goal. The Student Life Office and its affiliated offices are where students arrange for housing, learn about extracurricular programs and activities, resolve conflicts, and address health issues. These days, however, much of what used to be done in person during school hours can now be accomplished any time, any day, often anonymously. And that's the challenge.

Janet Begin Richardson, associate vice president for student affairs and dean of student life, says it wasn't very long ago that she'd arrive at work to find a line of students waiting to talk to her. Today that line is more likely to form in her e-mail in box, where she says it's not unusual to find 35 messages some mornings. "It used to be that students knew they'd have to wait to talk to me in the morning or after the weekend," she says. With e-mail's instant access, Richardson is contacted more often by more students because they can write to her as soon as an issue comes up. "The downside is that I see fewer students in person these days and I miss getting to know them."

"Computers are replacing some human contact," she says. Fewer students head for the lounges in residence halls to converse or relax. Instead, more and more do their socializing online. "We now train our RAs to look for students who are isolating themselves in their rooms," says Richardson. "It's easy to close your door and click on the computer. There's so much out there.

But it's especially important for college students to leave their desks and books at times and have fun, and we really focus on encouraging them to learn about and take advantage of the wide variety of opportunities for social interaction available on this campus."

Snoddy sees another side to the issue. "Our students are technologically literate," he says. "But that isn't enough to succeed in college or in life. What we strive to do is balance this competence with opportunities for social interaction. Students need to be able to feel comfortable in interpersonal relationships as well as on the Net to succeed as a member of the WPI community and in their careers."

Creating community is encouraged from the time new students arrive on campus. Since 1997 an innovative program has been a part of New Student Orientation. During NSO, the newcomers separate into heterogeneous teams of about 25 students to create a "virtual community." Working with an Orientation Leader and a faculty consultant, each team designs a Web site for a "virtual student" with a four-year schedule tailored to his or her major, personality, hobbies and interests. "The exercise has been a wonderful way for students to begin building relationships with each other and with the University," says Snoddy.

One of the newest and easiest ways to learn about programs and events and even meet people in the Colleges of Worcester Consortium and beyond is via the Social Web at www.socialweb.net. Troy Thompson '95, a graduate student in biomedical engineering who is operations supervisor for the College Computer Center, created and maintains the site, where you can find everything from bus schedules to conferences, concerts and community service opportunities. There's even a matchmaker section for people to get together for events, organizations to find new members, and individuals to meet compatible companions. This option-filled, user-friendly site enables individuals to tailor how they want informa-



tion transmitted and received and to identify themselves to others through hundreds of characteristics.

Computers will also be a vital part of the new Campus Center. "We have to project into the future and figure out what the patterns of use will be," says Richardson. "There will be computer drops throughout the building for PCs and laptops, and terminals so they can check their e-mail."

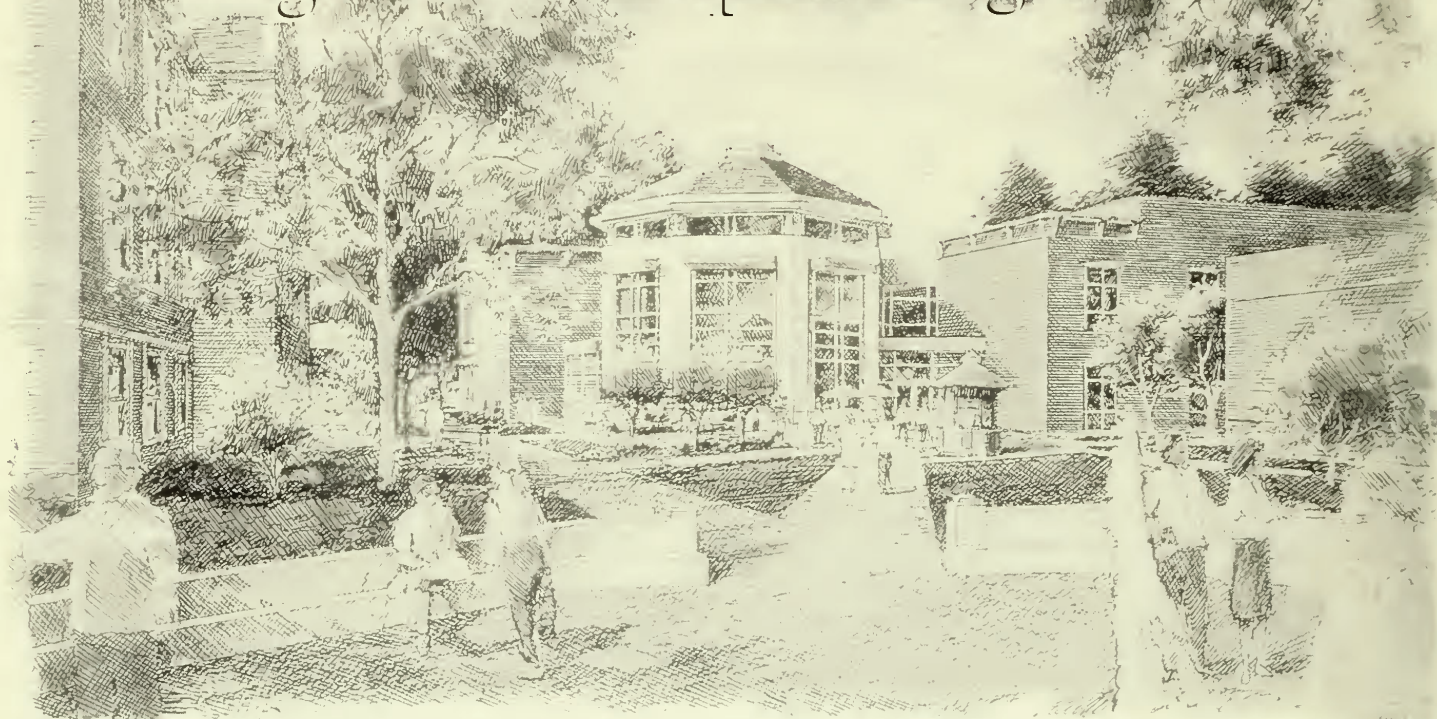
And tables for those who still want to play chess against real people!

—Bonnie Gelbwasser

10:31 p.m. | Finally, time for fun!

As Moses McCall '01 and Jessica Hamel '99 know, WPI's computer network is now the thread that holds together its social network. To make friends and find out what's happening on campus, students often turn to the computer. While they sometimes replace human contact, e-mail, the Web, chat programs and bulletin boards can also bring people together.

Making Plans, Expanding Horizons



Last year, long before the worldwide countdown to the new millennium ratcheted into full gear, WPI was already aggressively formulating a blueprint to position and strengthen the University for the 21st century. In 1997-98, the building blocks of plans and programs for the WPI of the future included

- the second phase in the creation of a new strategic plan,
- a program of strategic tuition and fee increases to provide resources to begin raising WPI's quality in advance of a major capital campaign,
- the receipt of two landmark gifts,
- strides toward construction of a campus center,
- expansion of the Global Perspective Program,
- honors garnered by a dedicated and talented faculty, including a Fulbright fellowship and five NSF CAREER awards.

"WPI is opening the door to the new century with visionary programs, an enhanced curriculum that is responsive to the needs of the global economy, and improvements and additions that benefit all who learn and work here," says President Edward Alton Parrish. "We're at the crossroads of our journey into 2001 and beyond

—a voyage that will secure our position as a world leader in technological education."

What follows is a look at some of the milestones of 1997-98.

Strategic Planning Paves Road to Next Campaign

In the fall of 1997, the Planning and Implementation Committee (PIC) succeeded the Strategic Plan Steering Committee (SPSC), which had begun the process of developing a new strategic plan in 1996-97. During the year, PIC used SPSC recommendations and the reports of 13 task forces to formulate five goals and 21 strategic initiatives. These included adding to our full-time faculty while retaining the current size of our undergraduate student body, nurturing research and scholarship, enhancing library facilities and services, improving the first-year experience, and making the curriculum truly global. At the beginning of the current academic year, members of the WPI community were invited to prioritize these goals and initiatives, which Parrish is crafting into a final strategic plan to guide our future efforts.

In his State of the University address in March 1998, Parrish said WPI had begun a five-year plan of strategic tuition increases that will enable the University to make

An architect's rendering of the entrance to the WPI campus center as seen from Reunion Plaza.

immediate investments designed to raise its quality. The program was prompted by a confluence of national studies and initiatives aimed at reforming technological education. These efforts are leading to a model quite similar to the one WPI developed 30 years ago, providing the University with a critical opportunity to gain increased recognition and prestige (see "Making Big Plans," *WPI Journal*, Summer 1998).

Revenue from the first year of the program helped WPI hire new faculty members in high-demand areas, renovate several classrooms and transform some into state-of-the-art multimedia facilities, and expand the Global Perspective Program—the most ambitious and successful program of its kind at any American technological university.

This April WPI will launch a major comprehensive campaign that will continue to build the University's quality and prestige by raising revenue to construct a campus center and to meet a host of other objectives. Two significant gifts received during the quiet phase of the campaign in 1997-98, \$5 million from Worcester's George I. Alden Trust and \$2.6 million from the estate of Harry A. Sorenson '30, will help meet two of the likely

goals of the campaign: constructing a new academic building and providing endowed scholarships for undergraduate students.

The Alden grant equals the largest gift in WPI's history: the 1965 bequest from George C. Gordon, Class of 1895, which was used to build Gordon Library. The new grant will support the construction of a 48,000-square-foot academic building that will feature technologically advanced classrooms and much-needed faculty offices. The \$13.1 million structure will rise from the hillside adjacent to the library and just below the Washburn Shops. The building is being designed to house the Department of Humanities and Arts, the Department of Management, and the Division of Continuing Studies.

The Sorenson bequest, the second largest gift in WPI history, will be used to establish a scholarship fund named for the donor. Originally from Hartford, Conn., Harry Sorenson was a scholarship student who majored in mechanical engineering at WPI and went on to earn a master's and a doctorate at the University of Michigan. He spent the first part of his career in industry, working for Stone & Webster, the Hartford Metropolitan District, and Pratt & Whitney Aircraft. In 1948 he joined the faculty of Washington State University and was head of its Mechanical Engineering Department for 20 years until his retirement in 1973. He and his wife, Merella, who died in 1991, were married for 60 years.

Action by the Board of Trustees in October 1997 put the long-awaited campus center on the construction calendar. The trustees voted to break ground for the new crossroads of the campus on or before Oct. 31, 1999, contingent upon having 90 percent of the estimated \$17.2 million cost in place. Shepley Bulfinch Richardson and Abbott had been chosen earlier in the year

to design the turreted, 71,000-square-foot structure, which will be built parallel to Olin Hall on the upper Higgins House grounds.

Alumni Master Plan Takes Shape

New ideas and new plans were also the big stories for the WPI Alumni Association in 1997-98. The association's Executive Committee and the Alumni Council approved a new five-year master plan for the association, which includes new vision and mission statements. The association also approved the reorganization of the Alumni Fund Board and its renaming as the Alumni Funds Board. The board provides advice and guidance for WPI's Annual Giving Program.

At the end of the year, association President Robert E. Maynard Jr. '63 was looking forward to the reports of four task forces that are developing recommendations and plans that build on four critical program areas identified in the new master plan. These are the organization of the Alumni Association's leadership bodies, communication with alumni, geographically targeted programming for alumni, and career development services and lifelong learning for alumni.

WPI Celebrates Its Expanding Global Reach

The Global Perspective Program drew a record number of undergraduates last year. More than 700 students attended the Global Opportunities Fair in September 1997; approximately 350 applied for off-campus projects in the days following the event—double the number for the same period in 1996. As of May 1, 1998, more than 370 students had been accepted for off-campus Interactive Qualifying Projects or Major Qualifying Projects in 1998-99 in project sites in Washington, Boston, London, Bangkok, Darmstadt, Venice, Costa Rica, Puerto Rico, Denmark, Holland and Australia.

Natalie Mello, program administrator for the Interdisciplinary and Global Studies Division, attributes the explosion of interest in off-campus projects to the dedication and support of faculty members and administrators and to the Global Ambassadors Program. Established in August 1997, the program harnesses the enthusiasm of Global Ambassadors (student veterans of off-campus projects) who get the word out about the exciting project opportunities available in other parts of the country and abroad. The ambassadors give presentations, maintain displays, and take part in admissions open houses and the global fair. Hossein Hakim, co-chair of the Interdisciplinary and Global Studies Division, lauds the faculty and administration for their support.

In A-Term, 12 students from four teams inaugurated WPI's first center established specifically for work on Major Qualifying Projects, located at NASA's Goddard Space Flight Center in Greenbelt, Md. "This site, a world-renowned research facility for unmanned spaceflight, was a natural choice for this initiative," says Fred J. Looft III, electrical and computer engineering professor and program director. "NASA administrators are pleased with the high level of engineering expertise our students bring to the center's ongoing projects." A WPI alumnus, H. Richard Freeman '61, is the chief engineer

Below, left, WPI's Global Ambassadors are veterans of off-campus projects who share their experiences and their enthusiasm for projects outside of the city and the country. Below, right, President Parrish enjoys a visit last spring with kindergarteners at a school sponsored by the Duang Prateep Foundation in the Klong Toey slum near WPI's Bangkok Project Center. Foundation Director Prateep Ungsogtham Hata is at left.



for Goddard's Engineering and Technology Directorate. WPI administrators continue to explore project and faculty-partnering opportunities at the center.

In March 1998, WPI celebrated the 25th anniversary of its programs in London with a gala at the U.S. Embassy hosted by President Parrish and The Honorable Philip Lader, America's Ambassador to the Court of St. James. Guests from around the world attended the event, which was followed by the inaugural meeting of the President's International Advisory Board. The PIAB, which consists of prominent alumni and other international executives and business leaders from the United States and several other nations, was established to help WPI expand its leadership role in global technological education.

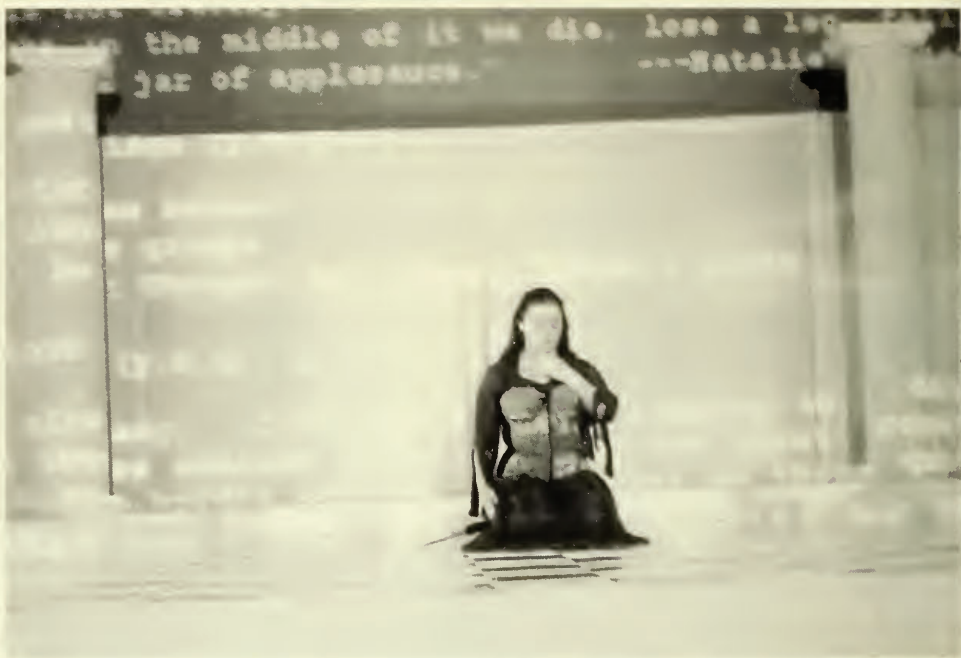
Honors Accumulate for Accomplished Faculty

Five WPI professors were honored with National Science Foundation Faculty Early Career Development (CAREER) Program awards. The NSF program encourages young faculty members to develop as educators and researchers. Seven WPI faculty members have received CAREER awards since the program began in 1995.

The 1997-98 winners are **George T. Heineman**, assistant professor of computer science, **James C. Hermanson**, associate professor of mechanical engineering, **John A. McNeill**, assistant professor of electrical and computer engineering, **Christof Paar**, assistant professor of electrical and computer engineering, and **Fabio H. Ribeiro**, assistant professor of chemical engineering (June 1997). **Chrysanthe Demetry**, WPI's Norton Assistant Professor of Mechanical Engineering, and **Barbara E. Wyslouzil**, associate professor of chemical engineering, received CAREER awards in 1995.

Joshua P. Abrams, a master teacher of mathematics at the Massachusetts Academy of Mathematics and Science at Worcester, which is located on the WPI campus, received a Presidential Award for Excellence in Teaching from the National Science Foundation. Abrams was cited for his exceptional talent, leadership abilities and dedication. The award included a \$7,500 grant to the academy.

Peter H. Hansen, associate professor of history, was elected a Fellow of the Royal Historical Society. Founded in 1868, the organization is the premier society in Great Britain for the promotion of the study of history. Historians may be elected to fellowship if they have made an original contribution to



Jessica Sands '98 had the starring role in *Medea*. WPI's version of the Greek tragedy featured cutting-edge technology that included virtual reality.

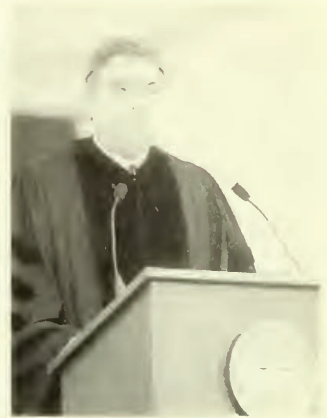


WPI professors, clockwise from top left, Heineman, Labonté, Hansen, Lurie, Hermanson, Paar and McNeill.

historical scholarship in the form of significant published work. Hansen, who directs WPI's interdisciplinary International Studies Program, is an expert on British history and Europe in the 20th century. He spent the summer of 1998 at the Australian National University's Humanities Research Center in Canberra, where he continued his research

on the history of British mountaineering.

Electrical and Computer Engineering Professor **Robert C. Labonté** was named WPI's first Professor of Practice. This new type of faculty appointment was created in 1997 to attract proven leaders in industry and government to teach and share their expertise.



Above, the baseball team earned its first Constitution Athletic Conference title. The team finished its second consecutive winning season at 16-13—tying the school record. Above right, GM Executive Vice President Ronald Zarrella '71 gave the 1998 Commencement address. Right, the Greek Networking Project extended the campus network wirelessly to each fraternity and sorority house.

Konstantin A. Lurie, professor of mathematical sciences, received a Fulbright grant to do research and teach at the Technical University of Denmark in Lyngby. Lurie is planning to conduct research in spatio-temporal design at the university this spring.

New Programs Broaden WPI's Educational Horizons

In 1997-98, WPI became the first university in the world to offer a bachelor's degree program in system dynamics, a method of studying and modeling complex systems on the computer. The program, which requires course work in engineering, the social sciences, mathematics and computer science, was established in response to the need to understand and control socioeconomic systems. "Our graduates will be able to use system dynamics computer-simulation modeling to solve problems in a wide range of policy areas relevant to engineering, economic and societal systems," said Khalid Azeed, head of the Social Science and Policy Studies Department. "WPI is leading the way into a new frontier," noted Jay W. Forrester, Germeshausen Professor Emeritus at MIT, a pioneer in system dynamics and the keynote speaker at a reception at which the new major was announced.

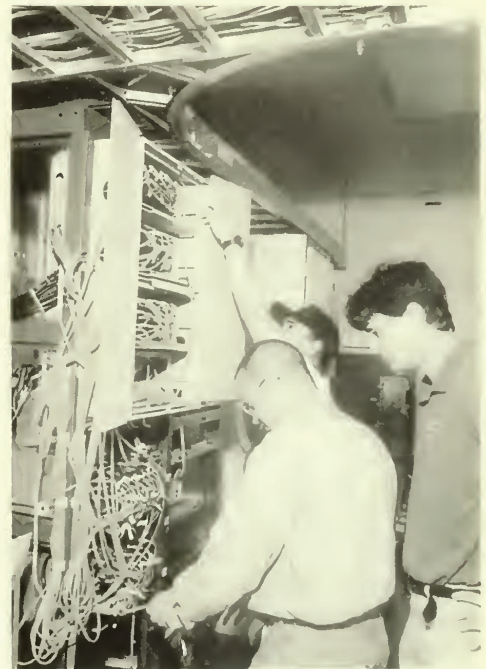
Civil and Environmental Engineering joined with four other departments to establish a new Management, Environmental, International (MEI) option within WPI's traditional doctoral programs. A five-year, \$62,000 grant from the National Science Foundation supports the program, which is designed to educate students in the management of technology, environmental responsibility, and problems associated with international competitiveness.

Last winter, WPI and the Escuela Superior Politecnica del Litoral (ESPOL) in Guayaquil, Ecuador, signed an agreement to enable as many as 25 ESPOL students to come to WPI. Up to 15 will be allowed to complete their last two years of college here; 10 more could complete M.B.A.s or master of science degrees in operations and information technology or in marketing and technological innovation. The new partnership is the second for the two universities. In 1992 WPI was part of a five-year, \$500,000 U.S. Agency for International Development program that promoted linkages between institutions of higher learning in the U.S. and developing countries. That program was extended in the fall of 1997.

Economics and Education Focus of Two Major Meetings

One of the year's highlights was the May meeting of the Industry/University/Government Roundtable on Enhancing Engineering Education. NASA Administrator Dan Goldin was the keynote speaker for the meeting—the first on a university campus. IUGREEE grew out of a series of Boeing Company roundtables at which industrial, academic and government leaders were encouraged to discuss issues and concerns about the future of the engineering profession and of engineering education. Last year's action teams reported on academic programs for the year 2010, enhancing the engineering profession, career-long learning mechanisms, and integrating information and computational advances. President Parrish is an IUGREEE member.

The economic summit "Manufacturing Our Future" drew 400 leaders of industry, academia and government to campus on



Sept. 15, 1998. Paul S. Kennedy '67, president of Kennedy Die Casting in Worcester, chaired the event, which focused on how manufacturers in Worcester and the region will need to respond to market demands of the global economy to maximize their strengths and resources. All-Energy LLC and the (Worcester) *Telegram & Gazette* sponsored the all-day summit, which was organized by the Central Massachusetts Manufacturing Partnership, the Greater Worcester Chamber of Commerce and the Colleges of Worcester Consortium, in cooperation with U.S. Rep. James P. McGovern, D-Mass. WPI hosted a second summit in December 1998 that featured the announcement of the Central Massachusetts Regional Compact, in which key leaders, including President Parrish, pledged to work cooperatively toward the growth and renewal of the region's economic and environmental health.

—BONNIE GELBWASSER

FINANCIAL SUMMARY AND HIGHLIGHTS

BY STEPHEN J. HEBERT '66

Vice President for Administration, Treasurer and Secretary of the Corporation

ON JUNE 30, 1998, WPI completed another highly successful year, both operationally and financially. The University finished the year with an operating budget surplus of \$464,000, which was subsequently reduced to \$17,000 through three transfers to reserves.

Considerable good news during the year had a favorable effect on the financial picture. Perhaps the most important news concerned the financial aid budget, which for the first time in over a decade saw virtually no increase from the previous year. For the last several years, the percentage of freshmen receiving grant aid had stood at about 78 percent, with the average award increasing every year, sometimes in line with the increasing cost of attending WPI, and sometimes at a faster rate. In FY98, however, the percentage of freshmen receiving need-based grant aid declined to 73 percent, and the average grant declined, as well. The geometric impact of that decline had a positive impact on the FY98 operating budget, an effect we hope will continue in subsequent years.

The total amount WPI awarded in merit and need-based aid during FY98 was actually \$225,000 less than it awarded the previous year. With this aid, WPI was able to secure a freshman class of 689—14 more students than it had budgeted for; while graduate enrollment was less than the budgeted number, the net effect of undergraduate and graduate enrollments was a positive variance from tuition revenue in a budget that is 63 percent-driven by net tuition.

Another bright spot during the year was the performance of WPI's continuing education operation. In its second year, the Waltham Campus continued to achieve outstanding results in terms of enrollment and net income. The Waltham operation and the balance of the University's continuing education programs produced a net contribution to the operating budget of \$1.6 million.

As the value of the endowment has continued to increase in recent years, WPI has benefited from an increase in the funds available as a result of the endowment spending rule. The spending rule, which is set at 5.5 percent, is based on a two-year moving average of the endowment at the close of each fiscal year (albeit one year removed). In FY98, the contribution of the endowment to the operating budget increased by \$600,000, to \$5,276,000.

Overall, the balance sheet increased by \$74 million during the year. Most of this increase was due to the continued positive impact of the equity markets. On June 30, 1998, WPI's endowment stood at \$254 million, up 16.6 percent from the value at the close of the previous fiscal year. The two-year annualized rate of return was 19.7 percent, the three-year return, 19.3 percent, and the five-year return, 15.6 percent. While these returns are unprecedented and not likely to continue, they have produced a positive effect on the overall financial operation and condition of WPI.

During the year, there was continued excellent response to the early phases of a major capital campaign, which will be publicly launched during FY99. On June 30, total commitments to the campaign had reached approximately \$40 million; the effect of some of the campaign gifts, as they relate to endowed funds, will begin to have an impact on the total operation of WPI in coming years.

Work continued during FY98 on the program and design for a campus center. The Board of Trustees has committed to breaking ground for the building no later than Oct. 31, 1999; it is anticipated that the center will be funded at the board-mandated level of at least 90 percent of the total project cost on or before that date. Fund-raising for the building through the capital campaign continued to

make good progress during the year; in addition, a total of \$5.6 million has been committed to the project from the bond issue completed late in FY97. Also during FY98, WPI received \$5 million from the George I. Alden Trust that will be applied to the construction of a new academic building on campus. Shortly after the close of the fiscal year, architects were engaged to design the facility and a large parking structure that will expand available parking on campus, long a source of concern.

Standard and Poor's and Moody's continued to rate WPI A- and A2, respectively, in FY98, placing WPI in the upper ranks of American colleges and universities.

Years ended June 30, 1998 and 1997

1. General Operating Funds

<i>(Thousands of Dollars)</i>	1998	1997	Percent Change
Tuition, fees and other educational revenues	\$61,915	\$57,931	+6.9%
Student financial aid	19,518	18,610	+4.9
Gifts and bequests received	30,822	8,258	+373.2
Revenues from sponsored research programs	6,120	7,518	-18.6
Total staff benefit expenses, before allocation	7,817	7,502	+4.2

2. Endowment and Similar Funds

<i>(Thousands of Dollars)</i>	1998	1997	Percent Change
Beginning asset market values	\$214,395	\$177,406	+20.9
plus:			
Investment results			
Income (interest and dividends)	\$4,640	\$3,610	
Realized and unrealized gains	32,293	34,910	
Total investment results	\$36,933	\$38,520	-4.1
less:			
Used in support of college	(5,357)	(6,818)	-21.4
Net reinvested in endowment	31,576	31,702	-0.4
plus:			
Additions to endowments	8,475	5,287	+60.3
Ending asset market value	\$254,446	\$214,395	+18.7

Five-Year Summary of Total Return Data

	'98	'97	'96	'95	'94
WPI Total Return	16.6%	22.9%	18.5%	16.9%	4.0%
WPI Policy Index	17.1	20.7	16.9	18.5	3.2
S&P 500	30.3	34.9	26.1	26.1	1.4
LB G/C Bond Index	11.3	7.8	4.7	12.8	-1.5
CPI Index	1.8	2.9	2.8	3.1	2.5

Copies of the complete audited financial reports for WPI for Fiscal Year 1998 can be obtained by writing to:
 WPI Office of Business Affairs
 100 Institute Road
 Worcester, MA 01609-2280

WPI

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FINANCIAL STATEMENTS



REPORT OF INDEPENDENT ACCOUNTANTS

The Board of Trustees
Worcester Polytechnic Institute:

In our opinion, the accompanying statements of financial position and the related statements of activities and of cash flows present fairly, in all material respects, the financial position of Worcester Polytechnic Institute at June 30, 1998 and 1997, and the changes in its net assets and its cash flows for the years then ended, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the University's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

PricewaterhouseCoopers LLP

September 30, 1998

STATEMENTS OF FINANCIAL POSITION

June 30, 1998 and 1997

ASSETS	1998	1997
Cash and cash equivalents	\$ 14,900,501	\$ 14,473,586
Accounts receivable, net	4,123,173	3,665,575
Accrued income receivable	363,308	348,076
Contributions receivable, net	14,489,415	2,193,239
Inventories	11,461	12,256
Deposits with trustees	16,928,178	21,989,745
Prepaid expenses and other assets	902,308	995,349
Notes receivable	15,562,432	14,692,079
Intermediate and long-term investments	264,105,175	221,046,818
Land, buildings and equipment, net	65,456,617	63,750,281
Total assets	\$ 396,842,568	\$ 343,167,004

LIABILITIES AND NET ASSETS

Accounts payable and accrued liabilities	\$ 7,481,244	\$ 6,838,137
Deposits and deferred revenues	2,723,943	2,926,937
Short-term portion of long-term debt	1,625,936	1,695,200
Annuities payable	2,564,410	2,058,419
Funds held for others	407,961	329,210
Refundable government loan funds	9,163,434	8,982,466
Long-term debt, net	63,096,294	64,687,592
Total liabilities	87,063,222	87,517,961

Net assets:

Unrestricted	165,238,462	147,793,560
Temporarily restricted	84,681,327	57,017,940
Permanently restricted	59,859,557	50,837,543
Total net assets	309,779,346	255,649,043
Total liabilities and net assets	\$ 396,842,568	\$ 343,167,004

STATEMENT OF ACTIVITIES

for the year ended June 30, 1998

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Operating revenues:				
Tuition and fees	\$ 51,678,814	\$ -	\$ -	\$ 51,678,814
Less: unrestricted student aid	14,559,841	-	-	14,559,841
Endowed scholarships	2,137,399	-	-	2,137,399
Externally funded student aid	2,820,734	-	-	2,820,734
Total student aid	19,517,974	-	-	19,517,974
Net tuition and fees	32,160,840	-	-	32,160,840
Other educational operations	10,236,619	-	-	10,236,619
Contributions	7,172,377	885,493	-	8,057,870
Contract and exchange transactions	10,438,242	-	-	10,438,242
Investment income on endowment	4,572,678	2,854	65,254	4,640,786
Net realized and unrealized gains on endowment, expensed	2,188,532	1,696,287	58,086	3,942,905
Other investment income	2,756,015	94,026	39,595	2,889,636
Gain on sale of real estate	23,500	-	-	23,500
Sales and services of auxiliary enterprises	8,147,451	-	-	8,147,451
Other	764,944	-	-	764,944
Total revenues	78,461,198	2,678,660	162,935	81,302,793
Net assets released from restriction	2,727,614	(2,727,614)	-	-
Total revenues and other support	81,188,812	(48,954)	162,935	81,302,793
Operating expenses:				
Instruction and department research	35,369,264	-	-	35,369,264
Sponsored research	6,118,902	-	-	6,118,902
External relations	3,118,888	-	-	3,118,888
Institution and academic support	11,550,125	-	-	11,550,125
Student services	4,896,779	-	-	4,896,779
Operation and maintenance of plant	12,808,790	-	-	12,808,790
Auxilliary enterprises	6,125,706	-	-	6,125,706
Total operating expenses	79,988,454	-	-	79,988,454
Change in net assets from operating activities	1,200,358	(48,954)	162,935	1,314,339
Nonoperating:				
Realized and unrealized gains	16,113,570	13,629,584	285,612	30,028,766
Change in value of split interest agreements	12,460	10,169	-	22,629
Contributions	118,514	14,072,588	8,573,467	22,764,569
Change in net assets from nonoperating activities	16,244,544	27,712,341	8,859,079	52,815,964
Total change in net assets	17,444,902	27,663,387	9,022,014	54,130,303
Net assets beginning	147,793,560	57,017,940	50,837,543	255,649,043
Net assets ending	\$165,238,462	\$84,681,327	\$59,859,557	\$309,779,346

The accompanying notes are an integral part of the financial statements.

STATEMENT OF ACTIVITIES

for the year ended June 30, 1997

	Unrestricted	Temporarily Restricted	Permanently Restricted	Total
Operating revenues:				
Tuition and fees	\$ 49,183,646	\$ -	\$ -	\$ 49,183,646
Less: Unrestricted student aid	14,020,126	-	-	14,020,126
Endowed scholarships	1,932,388	-	-	1,932,388
Externally funded student aid	2,657,544	-	-	2,657,544
Total student aid	18,610,058	-	-	18,610,058
Net tuition and fees	30,573,588			30,573,588
Other educational operations	8,746,894	-	-	8,746,894
Contributions	4,607,189	1,905,473	-	6,512,662
Contract and exchange transactions	12,994,866	-	-	12,994,866
Investment income on endowment	3,589,360	-	21,089	3,610,449
Net realized and unrealized gains on endowment, expended	2,184,240	1,645,167	50,770	3,880,177
Other investment income	1,845,133	293,742	37,864	2,176,739
Gain on sale of real estate	497,240	-	-	497,240
Sales and services of auxiliary enterprises	8,052,947	-	-	8,052,947
Other	739,976	-	-	739,976
Total revenues	73,831,433	3,844,382	109,723	77,785,538
Net assets released from restriction	2,507,185	(2,507,185)	-	-
Total revenues and other support	76,338,618	1,337,197	109,723	77,785,538
Operating expenses:				
Instruction and department research	33,517,942	-	-	33,517,942
Sponsored research	7,518,009	-	-	7,518,009
External relations	2,700,718	-	-	2,700,718
Institution and academic support	10,479,718	-	-	10,479,718
Student services	4,474,395	-	-	4,474,395
Operation and maintenance of plant	12,167,421	-	-	12,167,421
Auxiliary enterprises	6,138,289	-	-	6,138,289
Total operating expenses	76,996,492	-	-	76,996,492
Change in net assets from operating activities	(657,874)	1,337,197	109,723	789,046
Nonoperating:				
Realized and unrealized gains	17,828,141	13,961,195	309,577	32,098,913
Loss on refinancing	(3,204,727)	-	-	(3,204,727)
Contributions		549,267	1,196,015	1,745,282
Change in net assets from nonoperating activities	14,623,414	14,510,462	1,505,592	30,639,468
Total change in net assets	13,965,540	15,847,659	1,615,315	31,428,514
Net assets beginning	133,828,020	41,170,281	49,222,228	224,220,529
Net assets ending	\$147,793,560	\$57,017,940	\$50,837,543	\$255,649,043

The accompanying notes are an integral part of the financial statements.

STATEMENTS OF CASH FLOWS

for the years ended June 30, 1998 and 1997

	1998	1997
Cash flows from operating activities:		
Change in net assets	\$ 54,130,303	\$ 31,428,514
Adjustments to reconcile change in net assets to net cash provided by operating activities:		
Depreciation and amortization	6,692,684	6,558,383
Loss on refinancing	-	3,204,727
Change in the value of split-interest agreements	(22,629)	-
Provision for bad debt	(82,658)	(109,156)
Contributions other than cash	(3,692,158)	(797,306)
Increase in annuities payable	733,538	114,033
Net realized and unrealized gain on investments	(34,402,488)	(36,332,223)
Gain on sale of land	(23,500)	(497,240)
Contributions restricted for long-term investments	(3,086,210)	(1,196,015)
Changes in operating assets and liabilities:		
Accounts receivable	(427,830)	(150,978)
Contributions receivable	(12,258,518)	(1,317,764)
Notes receivable	14,314	(391,289)
Prepays and other assets	10,983	123,018
Funds held for others	78,751	(1,167)
Accounts payable and accrued expenses	643,107	1,212,467
Annuities payable	(204,918)	(22,685)
Deferred revenue	(202,994)	499,223
Net cash provided by operating activities	<u>7,899,777</u>	<u>2,324,542</u>
Cash flows from investing activities:		
Proceeds from sales and maturities of investments	158,649,831	89,090,801
Purchases of investments	(163,613,542)	(82,634,807)
Disposal of plant assets	196,151	-
Proceeds from sales of land	23,500	497,240
Purchase of land, building, and equipment	(8,495,841)	(6,240,054)
Disbursement of loans to students	(2,696,970)	(2,376,177)
Repayments of loans from students	1,812,303	1,771,954
Net cash provided by (used in) investing activities	<u>(14,124,568)</u>	<u>108,957</u>
Cash flows from financing activities:		
Receipts of refundable government loan funds	180,968	155,712
Contributions restricted for long-term investments	3,086,210	1,196,015
Deposits with trustees	5,061,567	(20,915,213)
Proceeds from issuance of debt, net of discount	-	61,741,874
Repayment of indebtedness	(1,677,039)	(37,928,021)
Debt issuance costs paid	-	(1,107,321)
Net cash provided by financing activities	<u>6,651,706</u>	<u>3,143,046</u>
Net increase in cash and cash equivalents	426,915	5,576,545
Cash and cash equivalents, beginning	14,473,586	8,897,041
Cash and cash equivalents, ending	<u>\$ 14,900,501</u>	<u>\$ 14,473,586</u>
Supplemental cash flow information:		
Interest paid	<u>\$ 3,107,169</u>	<u>\$ 2,536,402</u>

The accompanying notes are an integral part of the financial statements.

NOTES TO FINANCIAL STATEMENTS

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Background Worcester Polytechnic Institute ("WPI" or the "University"), founded in 1865, is the nation's third oldest private engineering college. Approximately 3,830 undergraduate and graduate students attend WPI annually. WPI is located in Worcester, Massachusetts, and serves a diverse student base from 44 states and 64 countries.

Basis of Financial Statement Presentation: The accompanying financial statements are presented on the accrual basis of accounting and have been prepared to focus on WPI as a whole and to present balances and transactions according to the existence or absence of donor-imposed restrictions.

WPI has defined its primary activities as operating and nonoperating. Operating activities consist primarily of activities supporting the educational mission and purpose of WPI. Nonoperating activities consist primarily of endowment gifts, unspent appreciation on endowment, and contributions for capital use.

Net assets and revenues, expenses, gains and losses were classified based on the existence or absence of donor-imposed restrictions. Accordingly, net assets and changes therein are classified as follows:

Permanently Restricted Net Assets Net assets subject to donor-imposed stipulations that they be maintained permanently by the University. Generally, the donors of these assets permit the institution to use all or part of the income earned on related investments for general or specific purposes.

Temporarily Restricted Net Assets Net assets whose use is restricted by state law or subject to donor-imposed stipulations that may or will be met by actions of WPI and/or the passage of time.

Unrestricted Net Assets Net assets not subject to donor-imposed stipulations.

Revenues are reported as increases in unrestricted net assets unless use of the related assets is limited by donor-imposed restrictions. Expenses are reported as decreases in unrestricted net assets. Gains and losses on investments and other assets or liabilities are reported as increases or decreases in unrestricted net assets unless their use is restricted by explicit donor stipulation or by law. Expirations of temporary restrictions on net assets (that is, the donor-stipulated purpose has been fulfilled and/or the stipulated time period has elapsed) are reported as reclassifications between the applicable classes of net assets.

Permanently restricted net assets consist of the following:

	1998	1997
Endowment funds - original principal	\$ 52,189,780	\$ 45,022,083
Split-interest agreements and perpetual trusts	6,069,580	4,305,129
Student loan funds	1,600,197	1,510,331
	\$ 59,859,557	\$ 50,837,543

Temporarily restricted net assets consist of the following:

	1998	1997
Gifts and other unexpended revenues:		
Instruction, research, and institutional support	\$ 14,285,725	\$ 2,661,743
Acquisition of building and equipment	3,229,294	2,126,591
	17,515,019	4,788,334
Endowment funds - unspent income and appreciation	59,379,949	46,645,637
Split-interest agreements and perpetual trusts	7,786,359	5,583,969
	\$ 84,681,327	\$ 57,017,940

	1988 dollars (millions)		Current dollars (millions)	
	1997	1998	1997	1998
Years ending June 30				
Total Operating Revenues (Net of Student Aid)	56.7	58.2	77.8	81.3
Total Operating Expenses	56.1	57.3	77.0	80.0
Tuition and Fees Revenues (Net of Student Aid)	22.3	23.1	30.6	32.2

At June 30, 1998 and 1997, substantially all of the University's unrestricted net assets were designated for specific purposes, as follows:

	1998	1997
Long-term investment (quasi-endowment funds)	\$ 139,293,261	\$ 120,878,921
Net investment in plant facilities	21,509,398	23,112,098
Loans to students	4,435,803	3,802,541
	<u>\$ 165,238,462</u>	<u>\$ 147,793,560</u>

Gifts and Pledges Contributions, including unconditional promises to give, are recognized as revenues in the period received. Conditional promises to give are not recognized until they become unconditional, that is when the conditions on which they depend are substantially met. The net assets of the Alumni Association of WPI, a separate 501(c)(3) corporation, are not reflected on the books of WPI. Net assets were approximately \$1.9M and \$1.6M at June 30, 1998 and 1997, respectively. Contributions of assets other than cash are recorded at their estimated fair value at the date received. Contributions to be received after one year are discounted at a rate of 6%. Amortization of the discount is recorded as additional contribution revenue in accordance with donor-imposed restrictions, if any, on the contributions. An allowance for uncollectible contributions receivable is provided based upon management's judgment including such factors as prior collection history, type of contribution and nature of fund-raising activity.

At June 30, 1997, conditional promises to give, consisting of bequests, not reflected in the financial statements were \$4,965,000.

Contributions with Restrictions Met in the Same Year Contributions, received with donor-imposed restrictions that are met in the same year as received, are reported as revenues of the unrestricted net asset class.

Release of Restrictions on Net Assets for Acquisition of Land, Building and Equipment Contributions of land, building and equipment without donor stipulations concerning the use of such long-lived assets are reported as revenues of the unrestricted net asset class. Contributions of cash and other assets to be used to acquire land, building and equipment with such donor stipulations are reported as revenues of the temporarily restricted net asset class. The restrictions are considered to be released at the time of acquisition of such long-lived assets.

Cash and Cash Equivalents Cash and cash equivalents include cash on hand and short-term investments with maturities of 90 days or less when purchased.

Inventories Inventories, consisting principally of alumni souvenirs, are valued at the lower of cost (first-in, first-out) or market.

Deferred Financing Costs Deferred financing costs relate to debt issuance costs which are amortized over the life of the bonds. Total amortization expense for the years ended June 30, 1998 and 1997, was \$82,583 and \$68,783, respectively.

Sponsored Research Revenues associated with research and other contracts and grants at the University are recognized as related costs are incurred. Indirect cost recovery by the University is based on a predetermined rate.

Property, Plant and Equipment Land and land improvements, buildings and equipment are recorded at cost at the date of purchase. When assets are retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts, and any resulting gain or loss is reflected in operation for the period. The cost of maintenance and repairs is charged to income as incurred, significant renewals and betterments are capitalized.

WPI depreciates capital assets based upon their useful lives. The policy applies to assets acquired with an expected useful life of three years or more and a cost greater than \$500. Depreciation is calculated using the straight-line method, half-year convention over the following estimated useful lives:

Land improvements	10 - 20 years
Buildings and improvements	20 - 40 years
Equipment	3 - 10 years

Depreciation expense for the years ended June 30, 1998 and 1997, was \$6,593,354 and \$6,489,600, respectively.

Years ending June 30	1988 dollars (millions)		Current dollars (millions)	
	1997	1998	1997	1998
Operations and Plant Maintenance Expenditures	8.9	9.2	12.2	12.8
Instruction and Department Research	24.4	25.3	33.5	35.4
Tuition and Fees as a Percent of Total Operating Revenues	1997/39.3%		1998/39.6%	

Split-Interest Agreements and Perpetual Trusts The University has split-interest agreements with donors consisting primarily of charitable gift annuities, pooled-income funds and irrevocable charitable remainder trusts. Assets held in trust are separately invested and are included in intermediate and long-term investments on the statement of financial position. Income distributions are made to beneficiaries in accordance with the trust agreements.

Contribution revenues for charitable gift annuities and charitable remainder trusts are recognized at the dates the agreements are established, after recording liabilities for the present value of the estimated future payments to be made to the respective donors and/or beneficiaries. For pooled income funds, contribution revenue is recognized upon the establishment of the agreements as the fair value of the estimated receipts, discounted for the estimated time period to complete the agreements. Such contributions, net of the related liabilities, are classified as increases in temporarily or permanently restricted net assets based on donor-imposed stipulations.

The present value of payments to beneficiaries of charitable gift annuities and charitable remainder trusts and the estimated future receipts from pooled income funds are calculated using discount rates from 6.8% to 8%.

Tax-Exempt Status The University is exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code.

Use of Estimates in the Preparation of Financial Statements The preparation of the financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassification Certain 1997 amounts have been reclassified to conform to current year presentation.

2. ACCOUNTS RECEIVABLE

Accounts receivable consist of the following:

	1998	1997
Sponsored research	\$ 1,715,307	\$ 1,976,983
Other receivables	2,778,376	2,057,165
	<hr/> 4,493,683	<hr/> 4,034,148
Less: allowance for doubtful accounts	370,510	368,573
Total accounts receivable	<u>\$ 4,123,173</u>	<u>\$ 3,665,575</u>

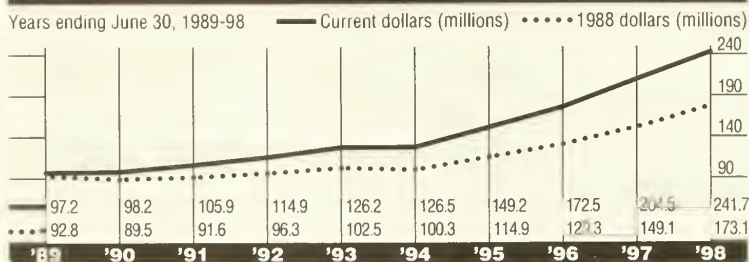
3. NOTES RECEIVABLE

Notes receivable consist of the following at June 30, 1998 and 1997:

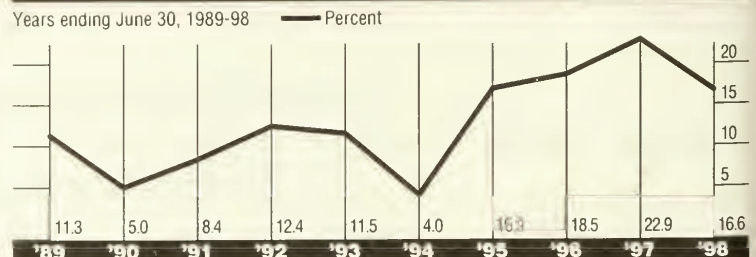
	1998	1997
Student loans	\$ 15,088,178	\$ 14,203,511
Other	485,652	499,966
	<hr/> 15,573,830	<hr/> 14,703,477
Less: allowance for doubtful accounts	11,398	11,398
Total notes receivable	<u>\$ 15,562,432</u>	<u>\$ 14,692,079</u>

Notes receivable are principally amounts due from students under federally sponsored loan programs which are subject to significant restrictions. Accordingly, it is not practicable to determine the fair value of such amounts.

Market Value of Endowment



Endowment Total Return



4. CONTRIBUTIONS RECEIVABLE

Unconditional promises at June 30, 1998 and 1997, are expected to be realized in the following periods:

	1998	1997
In one year or less	\$ 6,857,052	\$ 1,068,670
Between one and five years	6,755,503	1,184,569
Greater than five years	4,408,896	340,000
	18,021,451	2,593,239
Less:		
Discount	2,590,143	223,000
Allowance	941,893	177,000
	\$ 14,489,415	\$ 2,193,239

5. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consists of the following at June 30, 1998 and 1997:

	1998	1997
Land and land improvements	\$ 7,020,440	\$ 5,602,193
Buildings	82,583,433	79,685,627
Equipment	27,610,788	26,008,749
Construction in progress	3,811,834	1,430,237
	121,026,495	112,726,806
Less: accumulated depreciation	55,569,878	48,976,525
	\$ 65,456,617	\$ 63,750,281

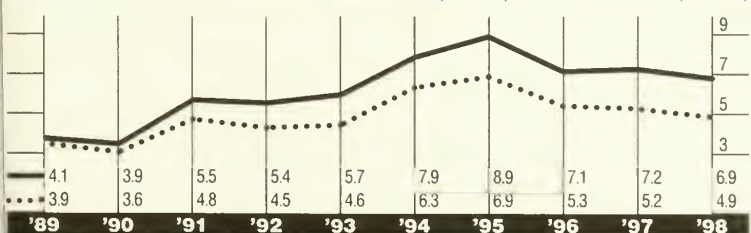
6. INVESTMENTS

Investments in equities, bonds, mutual funds, and funds held in trust by others have been reported in the financial statements at fair value. Investment in the realty trust is reflected at cost. Fair values for investments held through limited partnerships are estimated by the respective external investment managers if fair values are not readily ascertainable. Cash and investments at June 30, 1998, were as follows (comparative totals are included for 1997):

	1998				1997
	Endowment	Split-Interest Agreements	Other	Total	Total
Cash and cash equivalents	\$ 9,464,283	\$ 105,515	\$ 5,330,703	\$ 14,900,501	\$ 14,473,586
Equities	125,838,597	6,582,007	109,524	132,530,128	111,955,820
Bonds	16,326,330	7,462,376	112,485	23,901,191	21,889,472
Mutual funds:					
Equity funds	39,666,781	-	-	39,666,781	39,921,678
Fixed income funds	48,420,659	-	235,931	48,656,590	24,521,772
Venture capital	5,081,015	-	-	5,081,015	7,935,611
Realty trust	2,325,150	-	-	2,325,150	2,682,000
Oil and gas, L.P.	574,783	-	-	574,783	3,459,831
Bioventures, L.P.	626,727	-	-	626,727	608,505
Other partnerships	1,094,620	-	-	1,094,620	861,198
Real estate	5,026,801	128,000	-	5,154,801	5,154,800
Funds held in trust by others	-	4,493,389	-	4,493,389	2,056,131
Total intermediate and long-term investments	244,981,463	18,665,772	457,940	264,105,175	221,046,818
Total	\$254,445,746	\$18,771,287	\$5,788,643	\$279,005,676	\$235,520,404

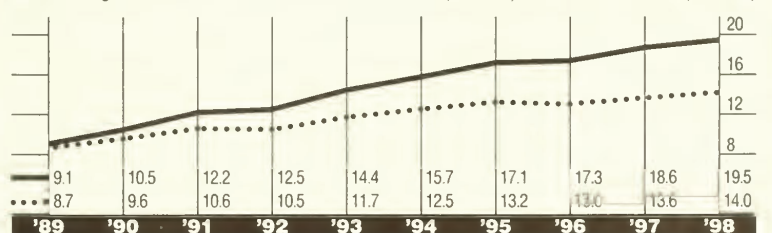
Sponsored Program Awards

Years ending June 30, 1989-98 — Current dollars (millions) 1988 dollars (millions)



Student Aid

Years ending June 30, 1989-98 — Current dollars (millions) 1988 dollars (millions)



Endowment Income and Spending At June 30, 1998, there was a total of 49,701,518 units, each having a market value of \$4.916. Of the total units, 21,297,546 were owned by endowment funds and 28,403,972 were owned by internally designated funds.

A summary of the market value per unit and the income per time-weighted unit for the pooled investments held as of June 30, 1998, and in each of the prior four years is as follows:

	Income Per Time Weighted Unit	Market Value Per Unit
1998	\$ 0.100	\$ 4.916
1997	0.079	4.345
1996	0.106	3.698
1995	0.114	3.190
1994	0.094	2.968

The University observes a spending rule with respect to unrestricted investment income on investments of the endowment. In accordance with that spending rule, the University distributed 5.5% of the average unit market value for the previous two years to current operations.

The spending rule distributions for fiscal 1998 and 1997, respectively, were .189 and .169 per time weighted unit which were comprised of .100 and .079 of income per time-weighted unit and .089 and .090 per unit distributed from accumulated capital gains.

Intermediate and long-term investments at June 30, 1998 and 1997, include the following split-interest agreements:

	1998	1997
Charitable gift annuities	\$ 3,663,168	\$ 3,047,459
Charitable remainder trusts	7,397,008	5,457,296
Pooled income funds	3,112,206	2,873,097
Perpetual trusts	4,493,390	2,056,131
	<u>\$ 18,665,772</u>	<u>\$ 13,433,983</u>

Investment Return The investment return in the statement of activities for the year ended June 30, 1998, with comparative totals for 1997 can be summarized as follows:

	1998			Total	1997
	Unrestricted	Temporarily Restricted	Permanently Restricted		Total
Investment income	\$ 4,572,678	\$ 2,854	\$ 65,254	\$ 4,640,786	\$ 3,610,449
Net realized and unrealized gains	18,302,102	15,325,871	343,698	33,971,671	35,979,090
Return on endowment	22,874,780	15,328,725	408,952	38,612,457	39,589,539
Other investment income	2,756,015	94,026	39,595	2,889,636	2,176,739
Total return on investments	25,630,795	15,422,751	448,547	41,502,093	41,766,278
Investment return designated for current operations	9,517,225	1,793,167	162,935	11,473,327	9,667,365
Investment return in excess of amount designated for current operation	\$16,113,570	\$13,629,584	\$285,612	\$30,028,766	\$32,098,913

Investment income is net of management expenses of \$1,821,767 and \$1,653,855 for the years ended June 30, 1998 and 1997, respectively.

7. LONG-TERM DEBT

Long-term debt at June 30, 1998, amounted to \$64,722,230. Schedule I summarizes the components of long-term debt. The aggregate amounts of principal due for each of the next five fiscal years are as follows:

1999	\$ 1,625,936
2000	1,839,251
2001	2,497,190
2002	5,585,299
2003	2,208,129

On February 15, 1997, WPI deposited with Trustees sufficient funds to prepay in full HEFA Series C and Series E Bonds which mature September 1, 2000, and September 1, 2017, respectively. WPI issued Massachusetts Industrial Finance Agency Series I bonds of \$29,855,000 in connection with the refinancing. (See Schedule 1) WPI recognized a loss of approximately \$3.2 million in fiscal 1997 on the refinancing. However, a net present value savings will be realized over the life of the bonds.

During fiscal 1997 WPI prepaid in full HEFA Series J1 and J2 loans. WPI issued MIFA Series II bonds of \$29,600,000 which included proceeds for the retirement of these HEFA loans.

In compliance with the University's various bond indentures, deposits with Trustees at June 30, 1998 and 1997, include investments in debt service and reserve funds of \$16,928,178 and \$21,989,745, respectively.

The University entered into an interest rate swap agreement with an investment broker in November 1991 in order to reduce the cost of borrowing on its HEFA Series C and E bonds. The swap had a notional principal amount of \$30 million and effectively changed the interest rate exposure on the Series C and E bonds to a variable rate based on a specified bond index. The swap agreement terminated in December 1996. The University recognized income from the swap of approximately \$165,000 during fiscal year 1997 which is included in other investment income in unrestricted net assets. The Series C and E bonds were refunded in February 1997.

In April 1994, WPI entered into a second six-year swap agreement (the "Agreement") for a notional amount of \$30 million in order to further reduce its cost of borrowing. The Agreement terminates in fiscal 1999 and calls for the receipt of fixed payments by the counterparty at 4.85% of the notional amount in exchange for variable payments on an equivalent amount based on the PSA Municipal Bond Index. In March 1996, the University amended the Agreement to receive fixed payments from the counterparty through June 1999 of \$63,000 per quarter. In fiscal 1998 and 1997, the University recognized income of approximately \$252,000 from the Agreement which is included in other investment income in unrestricted net assets. The fair value of the Agreement at June 30, 1998, was approximately \$238,000, which represents the present value of the future payments to be received by the University.

In February 1998, WPI entered into an interest rate swap agreement in order to reduce the cost of borrowing on its unsecured Fleet note. The swap changed the interest rate exposure on the Fleet note from a variable rate of LIBOR plus .135 to a fixed interest rate of 7%.

The University is exposed to credit risk in the event of nonperformance by the counterparty. The counterparty to the Agreement is an established investment bank and the University does not anticipate nonperformance by the counterparty.

Note 6, Schedule I, Summary of Bonds, Notes and Mortgages Payable
June 30, 1998

Purpose and Definition	Maturity Date	Interest Rate %	Original Issue	Amount Due Within One Year	Balance June 30, 1998
Bonds Payable:					
Housing and Urban Development:					
Series B - April 1, 1969 (2)	4/1/01	3.375	919,000	45,000	124,000
Series C - April 1, 1969 (3)	4/1/19	3.00	1,160,000	25,000	702,000
				<u>70,000</u>	<u>826,000</u>
Massachusetts Health and Educational Facilities Authority:					
Series A - July 1, 1977 (3)	7/1/03	4.7 - 5.3	4,150,000	200,000	1,110,000
Massachusetts Industrial Finance Agency:					
Series I (4)	9/1/17	5.11	-	1,020,000	28,685,814
Series II (5)	9/1/27	4.1 - 5.5	-	-	29,291,954
				<u>1,020,000</u>	<u>57,977,768</u>
Mortgage Payable:					
Ellsworth-Fuller Student Residence Center (6)	12/31/03	7.25	1,950,000	110,936	720,962
Unsecured Notes:					
Fleet Bank - 9/28/93	9/01/01	7.00	4,500,000	225,000	4,087,500
Total bonds and mortgages payable (7)				<u>\$1,625,936</u>	<u>\$64,722,230</u>

(1) Collateralized by land, building and equipment known as Daniels Hall (carried on the accounts at \$562,862) and pledged net revenues from the operations of the dormitory and bookstore located therein.

(2) Collateralized by land, building and equipment known as Stoddard Residence Center (carried on the accounts at \$747,424) and pledged net revenues from the operations of the dormitory and health center located therein.

- (3) Pledged as collateral are \$1,221,000 of internally designated endowment funds equal to 110% of the principal amount of the bonds outstanding which are held by a Trustee in the Debt Service Reserve Fund. Various academic revenues are pledged for the HEFA Series A bonds.
- (4) The bonds are not secured by a mortgage lien on security interest in any real property or revenues of the University and represent a general obligation of the University. The balance at June 30, 1998, is net of a discount of \$103,978.
- (5) The bonds are not secured by a mortgage lien on security interest in any real property or revenues of the University and represent a general obligation of the University. The balance at June 30, 1998, is net of a discount of \$331,416.
- (6) Interest is at 7 1/4%, of which 3% is paid by WPI and the balance is paid by the U.S. Department of Housing and Urban Development.
- (7) The total amount outstanding at June 30, 1998, approximates fair value based on estimates using current interest rates available for debt with the same remaining maturities.

8. PENSION PLANS

WPI contributes to a defined contribution plan (TIAA-CREF) for academic and nonacademic personnel. Contributions to TIAA-CREF are based on a percentage of payroll. The University's pension costs amounted to \$2,671,278 and \$2,506,185 for the fiscal years ended in 1998 and 1997, respectively.

9. COMMITMENTS

During fiscal year 1998, WPI entered into additional commitments with several limited partnerships to invest \$6,000,000, bringing the cumulative total to \$14,000,000. These partnerships invest in venture capital. As of June 30, 1998, WPI has funded approximately \$5,000,000, and has remaining commitments under the agreements of approximately \$9,000,000.

The University has guaranteed commercial loans of \$2,125,000 to four fraternities. These annual loans are collateralized by real property owned by the fraternities.

WPI is obligated under noncancelable operating leases for various facilities and equipment. Assets under these lease agreements consist of office furniture, computer equipment, office space and storage facilities.

Commitments under noncancelable operating leases provide for minimum rental payments for the next five fiscal years of:

1999	\$ 347,643
2000	284,208
2001	284,208
2002	19,200
	<u>\$ 935,259</u>

Rental expense was \$405,359 and \$335,909 for the years ended June 30, 1998 and 1997, respectively.

10. CONTINGENCIES

WPI has pending several cases which have arisen in the normal course of operations. WPI believes that the outcome of these cases will have no material adverse effect on the University's financial position.

The University's sponsored research program and indirect cost recovery are subject to the future audits by the respective sponsoring federal agency as provided for in federal sponsored research regulations. Management believes that such audits will not have a materially adverse effect on WPI's financial position.

11. EXPENSES BY FUNCTIONAL CATEGORY

Following is a schedule of expenses by functional category:

	1998	1997
Instruction and department research	\$ 41,091,499	\$ 39,001,424
Sponsored research	6,889,248	8,256,526
External relations	3,118,888	2,700,718
Institution and academic support	15,510,312	14,275,419
Student services	4,896,779	4,474,395
Auxiliary enterprises	8,481,728	8,288,010
	<u>\$79,988,454</u>	<u>\$76,996,492</u>

Depreciation, maintenance, interest and other expenses have been functionalized. Methods in allocating these expenses include actual expenses incurred and percentage of square footage for each functional area.

External relations expenditures include \$3,028,888 and \$2,631,766 of fund-raising expenses for the years ended June 30, 1998 and 1997, respectively.

As of June 30, 1998

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- Leonard E. Redon '73
Vice President, Director, Rochester Area Operations, Eastman Kodak Company
- Carol L. Reinisch
Senior Scientist, Marine Biological Laboratory
- Stephen E. Rubin '74
President and CEO, Intellution Inc.
- Frederick D. Rucker '81
Executive Vice President, Sales and Marketing, Global One
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- H. Kerner Smith
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Record Year Sets Stage for Campaign

BY JOHN L. HEYL, VICE PRESIDENT FOR UNIVERSITY RELATIONS

For the Office of Development and University Relations, 1997-98 was spent setting the stage for the future, a future that will be dominated by a major capital campaign in the near term. After a few years of planning and quiet fund raising, WPI is set to launch the Campaign for WPI in April. By far the most ambitious development effort in the University's history, the campaign will raise the resources needed to achieve WPI's strategic goals for the future (see *The Year in Review*, page 12).

The campaign will be kicked off on the heels of WPI's most successful fund-raising year ever. In 1997-98 the University received nearly \$16.5 million in gifts of cash and gifts-in-kind, or \$1.8 million more than we raised in the previous record-setting year. A new record was also set for our annual giving program, which raised more than \$1.5 million in funds that can be spent immediately to help WPI meet the expenses associated with providing a high-quality education to its students. The kudos for this exceptional performance go to the Alumni Funds Board and its chair, Harry W. Tenney Jr. '56, and the annual giving staff.

WPI revamped its alumni fund-raising organization last year, creating the Alumni Funds Board to oversee all alumni fund raising and to establish a class-based volunteer structure. Also established last year was the Annual Alumni Fund Committee, formed to solicit annual operational gifts from alumni. Of the committee's 15 members, 12 are charged with helping recruit and motivate volunteers in five-year class ranges. Class volunteer structures fall into the categories of reunion, anniversary and nonreunion/nonanniversary. The reunion program got off to a good start last fall with 15 classes launching three-year reunion campaigns.

The trend toward record setting was also in evidence in our planned and

deferred giving programs. In 1997-98, 47 individuals contributed a record \$3.3 million through deferred gift arrangements, such as charitable gift annuities, pooled-income funds and charitable remainder trusts. Equally unprecedented was the more than \$5 million in gifts received from the estates of 21 WPI alumni and their families. Among them was the \$2.6 million bequest from Harry Sorenson '30, the second largest gift in WPI history (see page 13).

A magnificent gift from the George I. Alden Trust, also received in 1997-98, equaled the largest gift in the history of the University: the \$5 million bequest from

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George C. Gordon, Class of 1895, that made possible the construction of Gordon Library. The gift from the Alden Trust will support the construction of a new academic building. Founded by WPI's first professor of mechanical engineering, the trust is WPI's greatest benefactor. Since 1920, it has awarded WPI \$10.8 million, not including this most recent gift. The most visible evidence of that generosity is Alden Memorial, completed in 1940 as a gift from the trust. Since then, the trust has supported the construction of Fuller Laboratories and the renovation of Salisbury Laboratories,

Alden Memorial and Higgins Laboratories.

Development and University Relations is about more than fund raising, and last year the office reorganized to best fulfill all three of its missions: raising resources for the University, enhancing the University's image and reputation, and building strong ties between WPI and its alumni. To build a cohesive and well-coordinated fund-raising program, we placed all of our development operations—annual giving, planned giving, major gifts, corporate relations, development research, alumni record keeping and gift recording—under the leadership of one individual, Robert G. Dietrich, director of development. We have also brought all of these functions together on the third floor of Boynton Hall.

In another move aimed at creating greater synergy, we merged our media and community relations and publications offices to form the Communications Group, under the direction of Michael W. Dorsey, director of communications. The group, located in a house just off the main campus, will play important roles in developing new marketing and communications strategies to support the University's goal of becoming a nationally known institution.

The Alumni Office, led by Tina Gorski-Strong, director of alumni affairs, continued to look to the future of alumni relations at WPI as it worked with the WPI Alumni Association on the development and implementation of a new five-year master plan (see page 13).

The year ahead promises to be among the most important and eventful in the history of this office and in the history of the University. With the completion of a strategic plan and the start of a capital campaign, WPI will be taking critical steps along a path that will carry us toward greater quality and prestige. It promises to be an exciting journey.

Staff of the WPI Journal: Editor, Michael W. Dorsey • Managing Editor, Bonnie Gelwasser • Alumni Editor, Joan Killough-Miller • Art Director, Michael J. Sherman • **Alumni Publications Committee:** Robert C. Labonté '54, chairman, Kimberly A. (Lemoi) Bowers '90, James S. Demetry '58, William J. Firla Jr. '60, Joel P. Greene '69, William R. Grogan '46, Roger N. Perry Jr. '45, Harlan B. Williams '50 • The *WPI Journal* (ISSN 0148-6128) is published quarterly for the WPI Alumni Association by the Office of University Relations. Periodicals postage paid at Worcester, Mass., and additional mailing offices. Printed by The Lane Press, Burlington, Vt. Printed in the U.S.A.

Diverse views presented in this magazine do not necessarily reflect the opinions of the editors or official WPI policies. We welcome letters to the editor. Address correspondence to the Editor, WPI Journal, WPI, 100 Institute Road, Worcester, MA 01609-2280 • Phone: 508-831-5609, Fax: 508-831-5820 • Electronic Mail, wpi-journal@wpi.edu • World Wide Web: <http://www.wpi.edu/~Journal/> • Postmaster: If undeliverable, please send Form 3579 to the address above. Do not return publication. Entire contents © 1999, Worcester Polytechnic Institute.

James M. Behmke '00, an electrical engineering major from
Berkonk, Mass., spent the summer of 1998 in Italy with a project
team that helped plan a 10th anniversary celebration for WPI's
Venice Project Center. For more highlights of 1997-98, see page 12.
Photo by Patrick J. O'Connor.

