

Almanac

Tuesday, November 8, 1994

Published by the University of Pennsylvania

Volume 41 Number 11

INSIDE

- SEC: Actions Taken November 2, Senate: Call for Nominations, p. 2
- AIDS Candlelight Convocation, p. 2
- Council: Debating Equity in Tuition Benefit, p. 3
- Of Record: Information Exchanges, pp. 4-6
- CrimeStats, Update, p. 7
- Talk About Teaching (DeTurck), p. 8

Moez Alimohamed Memorial Fund

The Department of Mathematics at the University of Pennsylvania has established a memorial fund in honor of Moez Alimohamed. Moez was a very successful and highly popular graduate student who was robbed and killed on August 29th in front of his home on 47th and Pine Street.

Initially, this memorial fund will be used for the following purposes:

The Moez Alimohamed Teaching Award. Moez was a dedicated teacher, who received several department awards for teaching excellence. The award will be presented annually to a graduate student in the Mathematics Department who has displayed this same commitment to teaching.

The Moez Alimohamed Graduate Student Reference Library. The library will be located in the Department of Mathematics' graduate lounge (Room 4E17, David Rittenhouse Laboratory) and will consist of a collection of mathematics books that our graduate students use frequently in their course work and research.

All donations are tax-deductible. Checks should be made out to The Trustees of the University of Pennsylvania and sent by campus mail to:

Professor Wolfgang Ziller,

Department of Mathematics

David Rittenhouse Laboratory/6395

Your contributions allow the University to keep alive the memory of one of its brightest young scholars and teachers while remembering Moez Alimohamed's commitment to academic excellence and all that he contributed to Penn.

—Robert P. Powers, Professor and Chair

—Wolfgang Ziller, Professor and Graduate Group Chair

—Dennis DeTurck, Professor and Undergraduate Chair,
Department of Mathematics

Meera Memorial Lecture: November 16

The annual all-University memorial observance for several Penn students lost to violence in recent years will be held on Wednesday, November 16, at 6 p.m. in the Red Room, on the ground floor of Graduate Tower A.

This year's focus will be on the vulnerability of international women students during the holidays, with safety advice presented by Barbara Cassel, assistant vice provost for University life; Maureen Rush, director of victim support and special services, and Mami Kinoshita, a graduate student in GSFA from Japan.

The annual gathering sponsored by the Penn Women's Center is known as the Meera Memorial in honor of a Ph.D. candidate in physics, Meera Ananthakrishnan of India, who was robbed and killed by an intruder in her room at Graduate Towers over the Thanksgiving break in 1985. Initially remembering Meera with reflections on crime, safety, the vulnerability factors in an urban community, the remembrance was later extended in 1988 to honor Cyril Leung of Hong Kong, a Ph.D. candidate in economics who was assaulted and killed in Clark Park, and later to honor Tyrone Robertson, an African American undergraduate who was shot and killed as a bystander in a fast-food restaurant in Chester, Pennsylvania during the holiday break at the end of 1989. To this roster is added the name of Moez Alimohamed (*see above*).

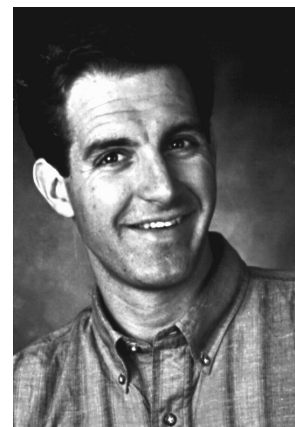
Packard Award:

Alan Johnson, Physics

Dr. Alan T. (Charlie) Johnson, Jr., assistant professor of physics, has been selected by the David and Lucile Packard Foundation as a Fellow in Science and Engineering for 1994. Dr. Johnson is one of 20 recipients of the five-year award of \$100,000 a year to support their research, work with graduate students and to enhance their "professional career with encouragement and substance," said Mr. Packard.

Dr. Johnson joined Penn in January 1994 and has been building a group focused on the electronic properties of mesoscopic systems, with support from the Physics Department and LRSM. He has taught Physics 150, Principles of Physics I—a calculus-based course for first-year students planning to major in engineering. A Stanford alumnus, Dr. Johnson took his Ph.D. in 1990 from Harvard, where he was a research assistant and a teaching fellow. While there he won a Danforth Center Award for excellence as a teaching fellow. Before coming to Penn, Dr. Johnson was a National Research Council Postdoctoral Fellow at the National Institute for Standards and Technology in Boulder. He has published almost a dozen papers in his field and has lectured widely in the U.S. and abroad on single electron charging in semiconductor quantum dots.

His Packard Award is the third such award for Penn; Dr. Gregory Voth, of chemistry won in 1990 and Dr. T. Kyle Vanderlick, of chemical engineering won in 1991.



Dr. Johnson

On White House Safety Review Panel: Dr. Rodin

At a press briefing in Washington on October 31, Treasury Secretary Lloyd Bentsen announced the naming of six "extremely qualified and well-respected Americans" to an advisory committee looking into the review of White House security. On it is Penn's President Judith Rodin.

"We want their independent advice to be certain that the review is comprehensive and it's objective; that its findings are backed by the facts; and that the recommendations are sound," said Secretary Bentsen. "We want the best advice that's available."

Under Secretary Ron Noble is to chair the committee, whose members have agreed to "volunteer their time, their expertise, their judgment and their insight at their expense," the Secretary added. The members as announced at the briefing:

Robert Carswell, a former Deputy Secretary of the Treasury; William Coleman, a former Transportation Secretary; Charles Duncan, a former Secretary of Energy and Deputy Secretary of Defense; Retired Air Force General and former Joint Chiefs of Staff Chairman David Jones; Dr. Judith Rodin, who is a psychologist and President of the University of Pennsylvania; and Former CIA and FBI Director Bill Webster.

Among the issues being debated now are those involving the "open White House" versus restricted public access, Secretary Bentsen said.

TO: The University Community
FROM: Barbara J. Lowery, Chair, Council Steering Committee
William F. Harris, Moderator, University Council
SUBJECT: University Council Public Forum 11/9/94

The issues for the November 9 University Council Public Forum, in the order in which they will be addressed, are:

1. Women's issues
2. Lesbian issues
3. Recreational facilities
4. Andres Serrano exhibit
5. Minority permanence
6. Penn Watch

Presentations will be limited to 3 minutes in order to allow for Council discussion. Issues that are not on the schedule will be accommodated if time allows. The forum begins at 5 p.m. on Wednesday, November 9, in McClelland Lounge, the Quadrangle. The meeting is open to any member of the University community who wishes to attend, subject to space limitations.

SENATE

From the Senate Office

The following statement is published in accordance with the Senate Rules. Among other purposes, the publication of SEC actions is intended to stimulate discussion between the constituencies and their representatives. Please communicate your comments to Senate Chair Barbara J. Lowery or Executive Assistant Carolyn Burdon, 15 College Hall/6303, 898-6943 or burdon@pobox.upenn.edu.

Actions Taken by the Senate Executive Committee Wednesday, November 2, 1994

1. Academic Planning and Budget Committee and Capital Council. Past Senate Chair Gerald Porter reported that the Academic Planning and Budget Committee continued its discussion of the articulation between the capital budgetary process and academic goals. The provost will appoint a subcommittee to make recommendations. Discussion began on the role of the APBC in the process of implementing the proposed new curriculum.

Capital Council reviewed the process by which capital budget items are recommended to the Board of Trustees. Among the items approved was the purchase of a new computer system for the library.

2. Practice Professorships. It was moved and adopted that "SEC approves the creation of one practice professor in the Graduate School of Education and four practice professors in the Graduate School of Fine Arts with a review of the professorships in five years." This action will be forwarded to the provost.

3. Wharton Visiting Executive Professorships. It was moved and adopted that "SEC approved the renewal of five Wharton Visiting Executive Professorships with a review of the professorships in five years." This action will be forwarded to the provost.

4. Senate Nominating Committee Chair. F. Gerard Adams was selected chair of the Nominating Committee (see below).

5. Sexual Harassment Policy. The Senate Committee on the Faculty is reviewing the policy that currently appears in the Handbook. Law Professor Susan Sturm, chair of last year's presidential task force on sexual harassment, summarized the laws about such policies as a background for discussion. The Senate Committee on the Faculty will report back to SEC on any proposed changes.

6. Discussion on Implementing a 21st Century Undergraduate Education (*Almanac* October 25) with the president and provost. The president described the administration's goal to develop educational innovations, to integrate residential living with educational life and to build on opportunities and on Penn's strengths. She emphasized that curricular change lies with the faculty. Discussion of the proposed changes and the role of the faculty in their development and implementation followed.

Under the Faculty Senate Rules formal notification to members may be accomplished by publication in Almanac. The following is published under that rule.

To: Members of the Standing Faculty
From: Barbara J. Lowery, Chair

Nominations for Offices Requested

In accordance with the Rules of the Faculty Senate you are invited to suggest candidates for the posts and terms stated below, with supporting letters if desired. Candidates' names should be submitted promptly to the Chair of the Faculty Senate, 15 College Hall/6303, who will transmit replies to the Nominating Committee.

The following posts are to be filled for 1995-96:

Chair-elect of the Senate (1-yr term) (Incumbent: William L. Kissick)

Secretary-elect of the Senate (1-yr term) (Incumbent: Robert C. Hornik)

Four At-large Members of the Senate Executive Committee (3-yr term)

(Incumbents: Ellen Kennedy, Peter J. Kuriloff, Warren D. Seider, Henry Teune)

Two Assistant Professor Members of the Senate Executive Committee (2-yr term)

(Incumbents: Jane Isaacs Lowe, Timothy M. Swager)

Three Members of the Senate Committee on Academic Freedom and Responsibility (3-yr term)

(Incumbents: Frank I. Goodman, Jack Nagel, Henry Teune)

Three Members of the Senate Committee on Conduct (2-yr term)

(Incumbents: Alan Filreis, E. Ann Matter, Elsa Ramsden)

Two Members of the Senate Committee on the Economic Status of the Faculty (3-yr term)

(Incumbents: Jamshed K. S. Ghandhi, Samuel Z. Klausner)

Nominating Committee Elected

The Senate Executive Committee's slate of nominees for the Senate Nominating Committee was circulated to the Senate Membership on October 11, 1994. No additional nominations by petition have been received within the prescribed time. Therefore, according to the Senate Rules, the Executive Committee's slate is declared elected. Those elected are:

Jacob M. Abel (professor mechanical engineering)

F. Gerard Adams (professor economics), *Chair*

Peter J. Freyd (professor mathematics)

Frank F. Furstenberg, Jr. (professor sociology)

Howard Goldfine (professor microbiology/medicine)

James Laing (professor operations & information management)

Margaret M. Mahon (assistant professor nursing)

Neville E. Strumpf (associate professor nursing)

Susan Sturm (professor law)

Cancer Prevention/Detection

Penn's Cancer Center, Nursing School, and PennVIPS will host a lunch-time educational series about cancer prevention and early detection from noon to 1 p.m. on the dates shown below. All sessions are in Room 720, Franklin Building except the November 8 lecture, which will be in Room 721.

The program also gives information on community service opportunities at the Cancer Center. For more information call Penn VIPS, 898-2020.

November 8 *Smoking Cessation*; Jennifer Gorman, Cancer Center.

January 10 *Prostate Cancer*.

February 7 *Caregiver Training for Those Who Take Care of Cancer Patients*.

March 7 *Nutrition*.

April 4 *Cancer Care Resources*.

World AIDS Day December 1:

Candlelight Convocation

As part of our recognition of World AIDS Day the Immunodeficiency Program at HUP is having a convocation to share memories and celebrate the lives of our patients/friends who have died in the past few years.

One of the special privileges of caring for HIV-infected persons is the close relationships that we often develop with them and with their friends and families. We have a lot of fond memories of each of them. Though they are missed, we often find ourselves smiling as we recall these people and the profound way they influenced our lives.

As part of this celebration we will have a candlelighting ceremony and recall each of these persons by name. We want this to be a time when anybody who wishes can share a thought or reminiscence. Please bring pictures, poems, quilts, etc. We will have a place to display them.

The entire University community is invited because so many people wish to share in this event. We will begin at 5 p.m. on Thursday, December 1. If you plan to come please call 662-2473 by November 15 and let us know how many will be in your group.

We look forward to sharing this day with you.

— Stephen J. Gluckman, M.D.

*Director, Infectious Diseases
Clinical Services/Penn Medical Center*

'Penn Family' Conference

PennMed's candlelight convocation (*above*) and the University-sponsored conference on *AIDS and the Penn Family* (*Almanac* November 1) have been programmed not to overlap even though they are on the same date, December 1, and both ask preregistration by November 15, according to Denise Peele of the VPUL Office.

In last week's registration form, she added, the afternoon workshop on "Living with AIDS/HIV" should have been subtitled *Maintaining Emotional Well-Being* instead of "Psychosocial Issues."

Summation of Benefits Issues

At Council's October 19 meeting, several benefits issues were discussed.

- Equity in University contributions to A-3 retirement funds was queried during discussion following the 1993-94 report of the Personnel Benefits Committee. The committee's chair, Dr. Elsa Ramsden, said the committee has felt at a disadvantage to recommend the addition of benefits without comprehensive benefits planning.

- The first of two scholarship benefits outlined by Assistant Manager for Benefits Albert Johnson—for faculty and staff dependent children—drew the comment from Dr. Michael Cohen that taken literally, the restriction to “dependent children” would penalize faculty/staff children for marriage; he asked its removal.

- The other scholarship benefit outlined, for Penn faculty and staff (and after a certain period, their spouses) to take a limited number of courses per semester without charge, was on the agenda because of a challenge from the A-3 Assembly, whose Spokesperson Rochelle Fuller said in a prepared statement:

The University offers to its staff the opportunity to take up to six course units per year at Penn. When you're considering employment at Penn and during interviewing this benefit is heralded as one of Penn's greatest benefits. Not to mention, after three years of employment your spouse may take classes at 50% of cost and your children at 75% of cost at Penn or 40% of Penn's tuition at other institutions. Again, this continues to sound like a wonderful benefit and would make up for the deficiencies sometimes found in salary.

But, for the A-3 staff of the University this benefit is hugely overrated. What A-3 employees have found, when preparing to take classes and make application to Penn, is in many instances to be told that because they've been out of school for so long they should take classes at Community College, or because of their GPA in high school they should consider taking classes at Community or Temple.

Taking classes at another institution would be fine if Penn covered the cost. Staff of the University are not reimbursed in any way for taking classes at other institutions. While some are told that they can take refresher courses here and after receiving a 3.0 or better they can take additional classes. What we have found is there is no uniformity in the staff scholarship benefit as it is today. Some people are able to enroll at Penn with no problems—whether they have the required GPA average or not—while others are never given the opportunity to provide admissions counselors with their transcripts....

The A-3 Assembly would like with the help of Council and the Administration to bring uniformity to this program [citing *HUP and Wistar benefits that allow for courses at other institutions*]. We would like the University to consider developing a staff scholarship benefit that better meets our needs.

Dr. Henry Teune recommended that Penn either make the benefit realistic or alter the expectations raised in recruiting staff. Dr. Gerald Porter suggested Provost Stanley Chodorow look into alleged discrimination in admissions procedures, and added that perhaps the University and the Community College of Philadelphia could come to an exchange agreement of some kind.

The Provost said that while the benefit itself does not come under his aegis, admissions does, and that he will have his office investigate the allegations of inequity. He also said he would look into the possibility of an exchange with Community College.

Safety and Community in West Philadelphia: A Proposal

The urban environment around the University continues on a downward spiral with rising crime rates and increasing reluctance by students and faculty to live in West Philadelphia. The immediate cost to the University in terms of reduced student-faculty-community interaction is substantial. But the long-run cost, if perceived dangers keep away prospective students and faculty, is more serious.

More than thirty years ago, the University put a high priority on expanding its role in West Philadelphia, to create in that area a multi-racial middle class community that would anchor the University to its neighborhood. This community was to include student and faculty residences, business, and research facilities. Important steps in that direction were taken: the creation of the Superblock and Locust Walk, acquisition of some large properties including the Divinity School block, and construction of the University Mews. There have been sporadic moves more recently, like the schools initiative, but serious efforts to develop in a westward direction have faded.

The promise of the West Philadelphia initiatives has not been realized. Today, fewer faculty live in West Philadelphia; there are fewer students on the streets; and crime is more prevalent. The University appears to have turned its back on West Philadelphia, directing its expansion eastward toward the Schuylkill River. A few years ago I heard an influential University official suggest, perhaps only half in jest, that the University be surrounded by walls with gates to control access.

In place of improving the safety of the streets, Escort Service buses carry students west to their destinations in West Philadelphia and east to Center City, where, presumably, they stay indoors to avoid being mugged on the streets. By taking people off the streets, Escort Service actually increases the danger to the few who continue to walk.

My suggestion is that we rethink the links between the University and the surrounding West Philadelphia area. The idea of a mixed community extending for several more blocks into West Philadelphia where we would find students, faculty, and middle class residents, where there would be shops, restaurants, and cultural facilities, and where on-foot access would be safe, seems to me still a good one. It would call for some bold new moves and, of course, for some costs. But the investments required would greatly benefit the University in the long run.

A concrete proposal, but by no means the only possible one, is to establish a Locust Street Safety Spine. The heart of this proposal is to create a broad, brightly lit walkway with full-time safety officer protection along what is now Locust Street from 40th Street at least up to 44th Street. The University would encourage development of facilities along this route: student and faculty housing, shops, offices, a student cafe, a theater. Some of these would, I hope, be open during the evening hours. The Divinity School property and the presently vacant ACME property between 43rd and 44th Street could be utilized. Commercial and residential properties would be upgraded. Importantly, the Escort Service would pick up its passengers at 44th Street, assuring that there would be people along the street even in the evening hours.

Neighboring property owners could be asked to contribute to this effort, for example the owners of the “beige block,” itself a striking success, St. Mark's Place, and the Fairfax Apartments. Extension of the Safety Spine to Spruce Street around 44th and 45th Street, where many apartments and the University Mews are located, might also be possible.

A similar safety spine could be oriented eastward to provide a walking route to Center City, for example to 2400 Chestnut, where flight from West Philadelphia has taken many students. And, in cooperation with Drexel University, it might be possible to expand a safe passage zone to Powelton Village.

This is only one of a number of initiatives that could be taken to improve the surroundings of the University in West Philadelphia. These might include:

- development of new cultural and commercial facilities
- construction of housing on University-owned land
- improved incentives for home ownership and renovation (to all residents of the area rather than just to University employees)
- acquisition, repair or removal of dilapidated properties
- cooperative programs for upgrading and surveillance with neighborhood groups
- improved school and day care facilities (now being planned)
- improved police protection (now being planned).

The University and the West Philadelphia community will undoubtedly contribute many other ideas. I do not elaborate here on these possibilities, many of which have been considered in the past.

I hope that the University can once again take serious action to help upgrade the neighborhood of which it is a part. That would go a long way toward assuring safety in a racially and economically diverse neighborhood. By improving the community, the University will be improving itself.

— F. Gerard Adams,
Professor of Economics and Finance

To the University Community

In September 1989, the University of Pennsylvania received from the United States Department of Justice a request for information in connection with an inquiry on potential agreements among colleges and universities relating to financial aid, tuition, and faculty and administrative salaries. Cooperating fully with the investigation, the University provided many thousands of documents to the Justice Department.

The Justice Department's inquiry culminated in the entry on September 20, 1991, of a final judgment in the United States District Court for the Eastern District of Pennsylvania. Under the terms of that judgment, the University of Pennsylvania and seven other Ivy League schools agreed not to exchange certain types of information, such as financial aid data and "plans and projections, including budget assumptions, regarding future student fees or general faculty salary levels...."

In 1992, Congress modified the requirements by enacting legislation that allowed colleges and universities to agree to award institutional financial aid on the basis of need; the law did not authorize them to discuss financial aid awards to specific common applicants. That law, which expired on September 30, 1994, has been replaced by new legislation that permits colleges and universities that practice "need-blind" admissions to: (a) agree to award aid only on the basis of financial need; (b) use common principles of analysis for determining need; (c) use a common aid application form; and (d) exchange certain limited financial aid data with respect to commonly admitted applicants prior to making an aid award.

"Need-blind" admissions is defined as making admissions decisions "without regard to the financial circumstances" of the student. Like the prior law, the new legislation does not authorize colleges and universities to discuss specific awards to common applicants. Under the final judgment, the University is still required to maintain an enforcement program that disseminates the rules set out in the judgment and monitors compliance with the antitrust laws.

In accordance with the requirements of the final judgment, I have been designated Antitrust Compliance Officer with responsibility for implementing the antitrust compliance program. While complying with the final judgment is a priority, it should not impede appropriate communication among schools. Accordingly, we are republishing the final judgment in *United States v. Brown University, et al.* and the University's guidelines on cooperative exchanges of certain University information. Attorneys for the University are available to confer with you regarding compliance with the final judgment and the antitrust laws. Please direct your questions to the Office of the General Counsel, 221 College Hall; telephone: 898-7660.

— Shelley Z. Green, General Counsel

Guidelines on Cooperative Exchanges of Certain University Information

1. These Guidelines apply to University information pertaining to tuition (including fees for room and board), financial aid and salary levels for faculty and administrative personnel.

2. University officials may disclose policies and information to the public and may communicate to others policies and information once they have been made public. However, no University official shall communicate to an official of another school any plans or projections, including budget assumptions, regarding tuition and fees or general faculty salary levels prior to their final approval by the administration or the Trustees, as appropriate.

3. University officials must not participate in one-on-one or roundtable discussions with representatives of other institutions about projected or anticipated levels of tuition, fees, and salaries, or budget assumptions, and if such discussions occur, University officials must excuse themselves.

4. Decisions by the University relating to the setting of tuition, fees and salaries or the awarding of financial aid must not be based upon or refer to projections of tuition, fees, and salaries or financial aid by other educational institutions. University officials cannot solicit information concerning projected levels of tuition, fees and salaries or the methodology for awarding financial aid at other educational institutions.

5. No University official may request from, communicate to or exchange with any college or University confidential financial aid information. For purposes of this policy, confidential financial aid information includes but is not limited to the application of a

Needs Analysis Formula to, or how family or parental contribution will be calculated for, a specific applicant; the University's plans or projections regarding summer savings requirements or self-help; the aid awarded or proposed to be awarded any applicant except as required by federal law.

6. In general, current and historical data relating to tuition, fees and salaries may be discussed and exchanged with representatives of other institutions, unless such disclosure is proscribed (for reasons other than the antitrust laws) by University or legal regulations. (For example, the University generally will not disclose the salary of any identified individual without his or her consent.) Thus, University officials may release to representatives of other institutions and to the press information relating to current or past levels of tuition, fees and aggregate salaries, and may participate in discussions with representatives of other institutions about such current or past information. However, University officials cannot disclose budget assumptions about future tuition, fees and salaries, or suggest that the University will maintain current levels of tuition, fees and salaries or will modify them in any particular way (e.g., to agree that tuition and fees will rise by a specified percentage).

7. Any University official who learns of a violation of these Guidelines or of Section IV of the Final Judgment, must report it to the Antitrust Compliance Officer.

Questions about these Guidelines should be directed to the Office of the General Counsel.

Final Judgment of the U.S. District Court for the Eastern District of Pennsylvania begins next page

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF PENNSYLVANIA**

UNITED STATES OF AMERICA,

Plaintiff,

v.

BROWN UNIVERSITY IN PROVIDENCE
IN THE STATE OF RHODE ISLAND
AND PROVIDENCE PLANTATIONS;

THE TRUSTEES OF COLUMBIA
UNIVERSITY IN THE CITY
OF NEW YORK;

CORNELL UNIVERSITY;

THE TRUSTEES OF DARTMOUTH
COLLEGE;

PRESIDENT AND FELLOWS OF
HARVARD COLLEGE, MASSACHUSETTS;

MASSACHUSETTS INSTITUTE OF
TECHNOLOGY;

THE TRUSTEES OF PRINCETON
UNIVERSITY;

THE TRUSTEES OF THE UNIVERSITY
OF PENNSYLVANIA; and

YALE UNIVERSITY,

Defendants.

Civil Action No. 91-3274

FINAL JUDGMENT

Filed:

September 19, 1991

Entered:

September 20, 1991

the student's income from term time employment offered by, or through, the college or university).

(E) "Merit Aid" means Financial Aid that is not based on economic need.

(F) "Needs Analysis Formula" means any formula for calculating or ascertaining a student's need or Family or Parental Contributions.

(G) "Summer Savings Requirement" means the amount the college or university requires the student to earn during the summer to contribute to his or her Student Fees for the following year.

III. APPLICABILITY

This Final Judgment shall apply to each defendant and to each of their officers, trustees, and other members of their governing boards, employees, agents, successors, and assigns, and to all other persons in active concert or participation with any of them who shall have received actual notice of this Final Judgment by personal service or otherwise.

IV. PROHIBITED CONDUCT

Each defendant is enjoined and restrained from:

(A) agreeing directly or indirectly with any other college or university on all or any part of Financial Aid, including the Grant or Self-help, awarded to any student, or on any student's Family or Parental Contribution;

(B) agreeing directly or indirectly with any other college or university on how Family or Parental Contribution will be calculated;

(C) agreeing directly or indirectly with any other college or university to apply a similar or common Needs Analysis Formula;

(D) requesting from, communicating to, or exchanging with any college or university the application of a Needs Analysis Formula to, or how family or parental contribution will be calculated for, a specific Financial Aid applicant;

(E) agreeing directly or indirectly with any other college or university whether or not to offer Merit Aid as either a matter of general application or to any particular student;

(F) requesting from, communicating to, or exchanging with any other college or university its plans or projections regarding Summer Savings Requirements or Self-help for students receiving Financial Aid;

(G) requesting from, communicating to, or exchanging with any other college or university, the Financial Aid awarded or proposed to be awarded any Financial Aid applicant except as required by federal law;

(H) requesting from, communicating to, or exchanging with any other college or university any information concerning its plans or projections, including budget assumptions, regarding future Student Fees or general Faculty Salary levels; and

(I) entering into, directly or indirectly, any contract, agreement, understanding, arrangement, plan, program, combination, or conspiracy with any other college or university or its officers, directors, agents, employees, trustees, or governing board members to fix, establish, raise, stabilize, or maintain Student Fees or Faculty Salaries.

V. COMPLIANCE PROGRAM

Each defendant is ordered to maintain an antitrust compliance program which shall include designating, within 30 days of the entry of this Final Judgment, an Antitrust Compliance Officer with responsibility for accomplishing the antitrust compliance program and with the purpose of achieving compliance with this Final Judgment. The Antitrust Compliance Officer shall, on a continuing basis, supervise the review of the current and proposed activities of his or her defendant institution to ensure that it complies with this Final Judgment. The Antitrust Compliance Officer shall be responsible for accomplishing the following activities:

(A) distributing, within 60 days from the entry of this Final Judgment, a copy of this Final Judgment (1) to all trustees and governing board members, and (2) to all officers and non-clerical employees who have any responsibility for recommending or setting of fees, salaries, or financial aid in the offices of the President, Vice Presidents, Provost, Deans, Financial Aid, Admissions, Budget, Controller, Treasurer, and other similar offices;

(B) distributing in a timely manner a copy of this Final Judgment to

Final Judgment

Plaintiff, United States of America, filed its Complaint on May 22, 1991. Plaintiff and consenting defendants, by their respective attorneys, have consented to the entry of this Final Judgment without trial or adjudication of any issue of fact or law. This Final Judgment shall not be evidence or admission by any party with respect to any issue of fact or law. Therefore, before any testimony is taken, and without trial or adjudication of any issue of fact or law, and upon consent of the parties, it is hereby

ORDERED, ADJUDGED AND DECREED:

I. JURISDICTION

This Court has jurisdiction of the subject matter of this action and of each of the parties consenting to this Final Judgment. The Complaint states a claim upon which relief may be granted against each defendant under Section 1 of the Sherman Act, 15 U.S.C. § 1.

II. DEFINITIONS

As used in this Final Judgment:

(A) "Student Fees" means the tuition, room, board, and mandatory fees, or any of these individually, a college, or university charges.

(B) "Family Contribution" means the amount the student and the student's family pay from their income and assets towards the Student Fees.

(C) "Parental Contribution" means the portion of the Family Contribution the student's parent or parents contribute from their income and assets.

(D) "Financial Aid" means a reduction of the total Student Fees for a particular student. It consists of grants (gift aid) and self-help (loans and

any officer, employee, or trustee who succeeds to a position described in Section V(A);

(C) briefing annually those persons designated in Section V(A) on the meaning and requirements of this Final Judgment and the antitrust laws and advising them that each defendant's legal advisers are available to confer with them regarding compliance with the Final Judgment and the antitrust laws;

(D) obtaining from each officer, employee, or trustee designated in Section V(A) an annual written certification that he or she: (1) has read, understands, and agrees to abide by the terms of this Final Judgment; (2) has been advised and understands that non-compliance with this Final Judgment may result in his or her conviction for criminal contempt of court; and (3) is not aware of any past or future violation of this decree that he or she has not reported to the Antitrust Compliance Officer; and

(E) maintaining a record of recipients to whom the final Judgment has been distributed and from whom the certification in V(D) has been obtained.

VI. CERTIFICATION

(A) Within 75 days after the entry of this Final Judgment, each defendant shall certify to the plaintiff whether it has designated an Antitrust Compliance Officer and has distributed the Final Judgment in accordance with Section V above.

(B) For 10 years after the entry of this Final Judgment, on or before its anniversary date, the Antitrust Compliance Officer at each defendant school shall certify annually to the Court and the plaintiff whether that defendant has complied with the provisions of Section V.

(C) At any time, if a defendant's Antitrust Compliance Officer learns of any past or future violation of Section IV of this Final Judgment, that defendant shall, within 45 days after such knowledge is obtained, take appropriate action to terminate or modify the activity so as to comply with this Final Judgment.

(D) If any person designated in Section V(A) learns of any past or future violation of this decree, he or she shall report it to the Antitrust Compliance Officer promptly.

VII. SANCTIONS

(A) If, after the entry of this Final Judgment, any defendant violates or continues to violate Section IV, the Court may, after notice and hearing, but without any showing of willfulness or intent, impose a civil fine upon that defendant in an amount reasonable in light of all surrounding circumstances. A fine may be levied upon a defendant for each separate violation of Section IV.

(B) Nothing in this Final Judgment shall bar the United States from seeking, or the Court from imposing, against any defendant or person any other relief available under any other applicable provision of law for violation of this Final Judgment, in addition to or in lieu of civil penalties provided for in Section VII(A) above.

VIII. PLAINTIFF ACCESS

(A) To determine or secure compliance with this Final Judgment and for no other purpose, duly authorized representatives of the plaintiff shall, upon written request of the Assistant Attorney General in charge of the Antitrust Division, and on reasonable notice of the relevant defendant, be permitted:

(1) access during that defendant's office hours to inspect and copy all records and documents in its possession or control relating to any matters contained in this Final Judgment; and

(2) to interview that defendant's officers, employees, trustees, or agents, who may have counsel present, regarding such matters. The interviews shall be subject to the defendants's reasonable convenience and without restraint or interference from any defendant.

(B) Upon the written request of the Assistant Attorney General in charge of the Antitrust Division, a defendant shall submit such written reports, under oath in requested, relating to any of the matters contained in this Final Judgment as may be reasonably requested.

(C) No information or documents obtained by the means provided in this Section VIII shall be divulged by the plaintiff to any person other than a duly authorized representative of the executive branch of the United States, except in the course of legal proceeding to which the United States is a party, or for the purpose of securing compliance with this Final Judgment, or as otherwise required by law.

IX. LIMITING CONDITIONS

(A) Nothing in this Final Judgment shall prevent defendants that are members of a common athletic league from: (1) agreeing to grant financial aid to recruited athletes or students who participate in athletics on the sole basis of economic need with no differentiation in amount or in kind based on athletic ability or participation, provided that each school shall apply its own standard of economic need; (2) agreeing to permit independent auditors access to Financial Aid information to monitor adherence to this agreement so long as the monitoring process does not disclose financial aid information, needs analysis or methodology to other league members; or (3) interpreting this agreement and enforcing it so long as such interpretation and enforcement do not disclose financial aid information, needs analysis or methodology to other league members.

(B) Nothing in this Final Judgment shall prohibit any defendant from advocating or discussing, in accordance with the doctrine established in *Eastern Railroad Presidents Conference v. Noerr Motor Freight, Inc.*, 365 U.S. 127 (1961), and its progeny, legislation, regulatory actions, or governmental policies or actions.

(C) Nothing in this Final Judgment shall prevent any defendant from: (1) disclosing policies or information to the public; or (2) communicating to others policies or information once they have been made public. However, no individual designated in Section V(A) shall communicate to any individual similarly situated at another defendant institution any plans or projections, including budget assumptions, regarding Student Fees or general Faculty Salary levels prior to their approval by that defendant's Governing Board.

(D) Nothing in this Final Judgment shall prohibit any defendant from unilaterally adopting or implementing a Financial Aid program based, in whole or in part, on the economic need of applicants.

(E) Nothing in this Final Judgment shall prohibit or regulate conduct that federal legislation enacted subsequent to the entry of the Final Judgment authorizes or exempts from the antitrust laws.

(F) Nothing in this Final Judgment shall prevent the defendants from each unilaterally utilizing or appointing an independent agency, whether or not utilized by other defendants, to collect and forward information from Financial Aid applicants concerning their financial resources. The agency may only forward the financial aid information requested by that particular defendant.

(G) Nothing in this Final Judgment shall prohibit defendants or their representatives from continuing their consultations with the College Scholarship Service concerning the processing and presentation of its data in the same manner and degree as currently exists.

(H) Nothing in this Final Judgment shall prohibit an individual designated in Section V(A) from serving as and performing the normal functions of a trustee or governing board member of another college or university that is not a defendant to this action. However, the individual may not disclose any non-public information including student fees, faculty salaries, or financial aid to any other college or university.

(I) Nothing in this Final Judgment shall prohibit any defendant from disclosing information as part of the accreditation process. However, any individual participating in the accreditation process may not disclose any non-public information including student fees, faculty salaries, or financial aid to any college or university.

(J) Nothing in this Final Judgment shall prohibit any defendant from providing financial aid for an individual student in situations where such defendant is jointly providing education or financial aid for that student with another college or university.

X. FURTHER ELEMENTS OF DECREE

(A) This Final Judgment shall expire 10 years from the date of entry.

(B) Jurisdiction is retained by this Court for the purpose of enabling any of the parties to this Final Judgment to apply to this Court at any time for further orders and directions as may be necessary or appropriate to carry out or construe this Final Judgment, to modify or terminate any of its provisions, to enforce compliance, and to punish violations of its provisions.

(C) Entry of this Final Judgment is in the public interest.

Dated: September 19, 1991

— Louis C. Bechtle, Ch. J.

Penn Music at Curtis: November 13

The Penn Composers Guild will perform new works by graduate students Andrew Bleckner, Cecilia Kim and Andrian Pervazov, November 13 at 8 p.m. at the Curtis Institute of Music, 1726 Locust. More information: 898-6244.

The following call for help has been issued to all deans and building administrators.

The 1994-95 Safer Living Guide

The 1994-95 *Safer Living Guide* is now available from the Division of Public Safety, Victim Support and Special Services Unit located at 3927 Walnut Street/6175.

The guide contains valuable information on:

- The Division of Public Safety
- Staying Safe
- Sensitive Crimes
- Available Services
- In An Emergency
- Calling For Help.

We need your assistance in getting one copy of this booklet to every student, faculty and staff member via the appropriate means (i.e., department, school, mailbox, etc.).

Please provide the following to Tamika Williams, VSSS Administrative Assistant, at 898-4481 or williams@a1.police.upenn.edu:

- How many copies you will need
- In which school your students are enrolled
- How many staff/administrators/faculty come under your supervision
- Where the booklets should be delivered
- Who will receive and distribute the booklets.

Your thoughts, comments, and suggestions are welcome.

—Maureen S. Rush, Director,
Victim Support and Special Services
Division of Public Safety

A-3 Assembly: Touring a Landmark

The A-3 Assembly invites the University community to a tour of the Furness Building, led by Toby Martinez at 1 p.m. on November 16.

For reservations, call Charlotte Waxman at 898-7838

Crime Alert: Car Thefts, Lot # 33

In the past two weeks, unknown persons have stolen from Lot # 33 (600 S. University Avenue) the following:

- | | | |
|------|-----------|-----------------|
| 1993 | Honda | Accord |
| 1994 | Honda | Civic |
| 1994 | Chevrolet | Blazer (4-Door) |
| 1989 | Chevrolet | Blazer (2-Door) |

Currently, sports/utility and Dodge/Plymouth/Chrysler vehicles are very popular with auto thieves in the campus area.

On Thursday, November 10, between 8 and 10 a.m., officers from Penn's Victim Support/Crime Prevention Unit will be at Lot # 33 to distribute auto-theft prevention literature, teach vehicle owners how to reduce the chance of theft, outline the days and time periods auto thefts are most likely to occur, and to sell The Club (Econo Club \$25 and Regular Club \$32.) Meanwhile:

Safety Tips for Vehicle Owners

If possible, park your vehicle near the entrance or the attendant's booth when it is staffed...At night, try to park in well-lighted and well-traveled areas...Avoid leaving your vehicle for prolonged periods of time especially at night or on unattended lots... Do not leave valuables in plain view. If you won't be able to take them inside with you, lock them in the trunk *before* you get to the parking lot.

—Division of Public Safety

About the Crime Report: Below are all Crimes Against Persons and Society listed in the campus report for the period **October 31 through November 6, 1994**. Also reported were Crimes Against Property, including 55 thefts (including 5 burglaries, 3 of auto, 13 from auto, 12 of bikes & parts); 7 incidents of criminal mischief & vandalism; 1 of trespass; 1 of possession of stolen property. Full reports are in *Almanac* on PennInfo.—Ed.

The University of Pennsylvania Police Department Community Crime Report

This summary is prepared by the Division of Public Safety and includes all criminal incidents reported and made known to the University Police Department between the dates of **October 31 through November 6, 1994**. The University police actively patrol from Market Street to Baltimore Avenue, and from the Schuylkill River to 43rd Street in conjunction with the Philadelphia Police. In this effort to provide you with a thorough and accurate report on Public Safety concerns, we hope that your increased awareness will lessen the opportunity for crime. For any concerns or suggestions regarding this report, please call the Division of Public Safety at 898-4482.

Crimes Against Persons

34th to 38th/Market to Civic Center: Threats & harassment—4

- | | | | |
|----------|----------|-------------------|--|
| 11/04/94 | 3:18 AM | Stouffer Triangle | Boxes fell on complainant when door opened |
| 11/04/94 | 7:30 PM | Thos. Penn Dorm | Harassment by ex-boyfriend |
| 11/04/94 | 9:00 PM | E F Smith Dorm | Ex-boyfriend threatened complainant's friend |
| 11/04/94 | 10:21 PM | Nichols House | Swastika found on door in stairwell |

38th to 41st/Market to Baltimore: Threats & harassment—2

- | | | | |
|----------|----------|-----------------|--------------------------------|
| 11/01/94 | 9:57 AM | High Rise North | Harassing phone calls received |
| 11/05/94 | 12:52 AM | 4009 Pine St. | Threats received by telephone |

Outside 30th to 43rd/Market to Baltimore: Threats & harassment—1

- | | | | |
|----------|---------|-----------------|------------------------------|
| 11/06/94 | 1:08 AM | 33rd & Powelton | Harassment by driver of auto |
|----------|---------|-----------------|------------------------------|

Crimes Against Society

41st to 43rd/Market to Baltimore: Disorderly conduct—1

- | | | | |
|----------|---------|------------------|--------------------------------------|
| 11/06/94 | 4:04 AM | 4100 Blk. Spruce | Trash thrown on street/male arrested |
|----------|---------|------------------|--------------------------------------|

Update

NOVEMBER AT PENN

CHANGE

14 *Cultural Politics in the Low Countries in the Framework of the European Union*; Joris Duytschaever, University of Antwerp; 8 p.m.; Kade Center, 3905 Spruce (Dutch Studies). *Postponed from November 10.*

CONFERENCES

11 *History of Technology in the Year 2000*; workshop; moderator, Charles Rosenberg, history and sociology of science; Ken Alder and Ron Kline, Northwestern University; Bernie Carlson, Dibner Institute; 10 a.m.-noon; Suite 500, 3440 Market; lunch follows.

13 *Visions of a Sustainable Future and How to Get There*; 1-6 p.m.; Room B-3, Meyerson Hall; contribution: \$20, \$10/seniors and low-income, \$5/students; information: 610-352-2689; (City and Regional Planning; Sustainable Society Action Project, Inc.).

MEETING

12 *Selected Topics for Ophthalmic Personnel at the Assistant and Technician Level*; Scheie Eye Institute CME Meeting; 7:45 a.m.-2:25 p.m.; information: 662-8141 (Scheie Eye Institute).

TALKS

9 *An Influential Art: Music, Politics, and Ethnicity in Brazil*; Anthony Seeger, Smithsonian Institution; 4 p.m.; Ben Franklin Room, Houston Hall (Latin American Cultures Program).

10 *Explorations du Fixe au Changeant/Exploring the Scale From Fixed to Changing*; Bernard Lassus, French landscape architect; 6 p.m.; Room B-1, Meyerson Hall (GSFA).

11 *IBD Treatment*; Dale Bachwich, gastroenterology; noon; Agnew-Grice Auditorium, Dulles, HUP (Medicine).

15 *Why Cardiopulmonary Bypass Makes Patients Sick*; L. Henry Edmunds, Jr., surgery; 8 a.m.; Medical Alumni Hall, Maloney, HUP (Medicine).

The Future of Health Care Reform; U.S. Sen. John H. Chafee (R-RI), LDI Visiting Health Policy Fellow; 1-2 p.m.; Dunlop Auditorium, Stemmler Building (LDI; PennMed Center).

Protein Translocation Associated With Channel Gating; Alan Finkelstein, Yeshiva; 4 p.m.; Physiology Library, Richards Bldg. (Physiology).



Almanac

3601 Locust Walk Philadelphia, PA 19104-6224
(215) 898-5274 or 5275 FAX 898-9137
E-Mail ALMANAC@POBOX.UPENN.EDU

The University of Pennsylvania's journal of record, opinion and news is published Tuesdays during the academic year, and as needed during summer and holiday breaks. Guidelines for readers and contributors are available on request.

EDITOR	Karen C. Gaines
ASSOCIATE EDITOR	Marguerite F. Miller
EDITORIAL ASSISTANT	Mary Scholl
STUDENT AIDES	Libby Bachhuber, Suma CM, Zack Miller, Karen Now, Stephen J. Sanford, Jenny Tran

ALMANAC ADVISORY BOARD: *For the Faculty Senate*, Martin Pring (Chair), Jacqueline M. Fawcett, Phoebe S. Leboy, William Kissick, Barbara J. Lowery, Ann E. Mayer, Paul F. Watson; *for the Administration*, Stephen Steinberg; *for the Staff Assemblies*, Berenice Saxon for PPSA (formerly A-1 Assembly), Diane Waters for the A-3 Assembly, David Azzolina for Librarians Assembly.

$$z = (x^2 + 2y^2)e^{-x^2 - y^2} \quad \text{by Dennis DeTurck}$$

What is mathematical literacy? How is it achieved? Why bother with advanced mathematical education? The immediacy of these questions is emphasized by the nature of the debate over the book *The Bell Curve*, by Murray and Herrnstein. The book brims with data, statistical analyses and interpretation. Its conclusions concerning race and IQ have been criticized widely. Unfortunately, much of the commentary is emotional rather than rational, even though there is plenty of room for analytical criticism of the work.

There is a story about the great eighteenth-century Swiss mathematician Leonhard Euler. He was summoned to the court to debate an esteemed but nameless philosopher about the existence of God. The philosopher offered a long, eloquently-worded argument to refute the existence of a deity. Then, Euler stepped up to a blackboard and wrote some complicated mathematical equation (perhaps the title of this essay), stepped back, and intoned, "Therefore, God exists." The philosopher was speechless in the face of the mathematics because he was not mathematically literate enough to recognize its irrelevance.

Similarly, when we hear that "Housing starts were up 3% in October," how many of us know what this statistic means? How is it measured? Up 3% from what? From September housing starts? From October 1993 housing starts? Is this good news?

How does all this relate to freshman Calculus? It all comes back to the issue of why one learns mathematics. Probably, if a student intends to be a physician, an engineer, a lawyer, a businesswoman or a humanist, she will never need to calculate derivatives and integrals. But she must understand that mathematics provides useful tools and language for describing, measuring and predicting all manner of natural and human phenomena. Moreover, she should know how problems particular to her discipline get translated into the language of mathematics, to what extent realism is lost in the translation, and how accurate, reliable and relevant the results of mathematical analyses are to the original problems.

College students arrive having taken mathematics for many years. Most Penn students who need Calculus for their majors have studied some in high school. They say they "know Calculus." But anyone who has taught Calculus has heard the student lament: "I understand the math, it's those word problems!" These students have missed the whole point of studying mathematics in general, and Calculus in particular. Their mathematical education consisted primarily of drill on problems that were stated in mathematical terms ("Solve the equation...") and ended with "the answer in the back of the book." It's as though one learned the conjugations of all the regular and irregular French verbs, but didn't bother to understand the meaning of any of them.

Developing facility with symbols and getting correct answers to drill problems is important, but is only a small part of learning Calculus (or any mathematics) for two reasons. One is described above: for all but a few of us, mathematics is pointless unless it is done in a non-mathematical context. We must be using it to solve real problems. Thus, we must be able to translate something from the real world into mathematical language, solve the resulting mathematics problem, and interpret the answer in the language of the real world. We might do this to compare mortgages or investments, to decide to elect a risky surgical procedure to avoid not-quite-certain dire consequences, or to form opinions about public policy (should medical professionals be tested randomly for AIDS?).

The other reason that "symbol-pushing" is such a small aspect of mathematics education is that we can now relegate most of it to a machine. This causes controversy at every level. In elementary school, one wonders whether students should use calculators (although, in the words of Peter Drucker, "Life is too short for long division"). For Calculus students, the issue is the use of computers and programs like Maple.

Computing has evoked many essays that begin like this one: What is mathematical literacy? etc. This question is only half-answered in much that is said and written around the University. Many students come to Penn having used word-processing and publishing programs, e-mail, perhaps a spreadsheet, and games. They say they "know computers". Similarly,

many faculty (see the Provost's essay "The electronic environment" in October's *Penn Printout*) view the computer primarily as a tool for communication: we use it to "talk" to each other more, and to gain access to more information. This is a limited view, which ignores the fact that computers are also used for *computing*. What do we do with information once we have it? What kinds of thought take place before we post the message to the newsgroup? What are the tools for organizing, analyzing and interpreting textual, graphical and numerical data?

Against this background, the use of Maple in Calculus courses can be discussed. Maple is a programming language that can solve most of the "rote" problems in a typical Calculus book: Without much thought, the user types in the problems with only minor notational adjustments and a few decorative commas and semi-colons, and the computer types back the answers. Maple can draw two and three-dimensional graphs (the one on this page is the graph of the title), and can solve problems in many parts of advanced mathematics. Like any programming language, Maple has a fairly rigid syntax, and demands of the user a high degree of precision of thought. So using Maple comes with a cost. What is the return for paying this cost?

Many students will attest that the return is *not* that Maple makes Calculus easier to learn. Calculus is a profound achievement of human thought, and takes a great effort to master. Maple's graphics can help students visualize some difficult concepts, but making Calculus "easier" or helping students finish their homework faster is not the point. Rather, we return again to the theme of this essay: why we learn mathematics. Tedious details of mathematical calculations should be relegated to the computer, so that humans can focus on the intellectual and difficult part of the enterprise: the translation of the problem into mathematical language and the interpretation of the results of the mathematical analysis. In fact, this has been one of the biggest sources of student frustration. Since the machine can do the routine calculations, courses now place more emphasis precisely where the students are the least comfortable: translating word problems into math problems. The return for using the computer comes as students develop a deeper appreciation for the power and usefulness of the mathematics they are studying, and a greater ability to apply mathematics and quantitative thought when it is appropriate. This is evidenced as students and faculty in Biology, Chemistry, Physics, Engineering, and Economics classes begin to use Maple (or one of its cousins) to do mathematical work.

Another effect of the use of Maple in Calculus is the experience students gain in dealing with the software. Although most of our students will not be using this software in the future (indeed, it will undoubtedly be obsolete by the time this year's freshmen graduate), many will be faced with computer languages of one form or another (whether for the operating system of a machine, or statistical analysis, or specialized notation for music, etc.). Basic programming skills learned in one environment transfer to others, and are becoming more and more valuable.

Penn's Mathematics Department continues to look to the future. Mathematicians, together with faculty from the natural sciences, engineering, medicine, and the social sciences are working to develop a collection of classroom modules and interdisciplinary courses that combine the teaching of mathematical techniques with applications drawn from the research of the Penn faculty and from the work of users of mathematics in industry. The Society for Industrial and Applied Mathematics (whose national headquarters is in Philadelphia) is assisting with industry links, and is part of a Penn-led consortium of institutions pursuing this "holistic" approach to mathematics and its applications throughout the curriculum. Our new administration has committed itself to a significant new initiative to position Penn as a national leader in undergraduate education. The goal of this interdisciplinary effort is to make Penn a national leader in innovative undergraduate mathematics education.

Dr. DeTurck is professor and undergraduate chair of mathematics. His column is the second in a new Almanac series developed by the Lindback Society and the College of Arts and Sciences.

