
For Your Information

Statement on the Use of Part-Time Faculty

The leaders of ten professional societies, including the AMS, have issued a 9-page statement on the growing use of part-time faculty. The statement grew out of a conference held in the fall of 1997 that brought together sixty academics from different disciplines to discuss the impact that the use of part-time faculty has had on undergraduate teaching. The AMS representatives at the conference were Committee on the Profession member Annalisa Crannell and Associate Executive Director James W. Maxwell.

While there may be some valid reasons for using part-time faculty, “the terms and conditions of these appointments, in many cases, weakens our capacity to provide essential educational experiences and resources,” the statement says. “On behalf of our students and their families, we urge administrators and faculty to avoid excessive or inappropriate reliance on part-time or adjunct faculty.”

One part of the statement presents statistics describing the increasing use of part-time and adjunct faculty. For example, the statement notes that the proportion of part-time and adjunct faculty appointments has increased from 22% in 1970 to more than 40% in 1993, with part of the rise reflecting growth in community colleges. There is also a description of the working conditions, which the statement says are “emphatically substandard” for the majority of part-timers.

Sometimes part-timers are needed in order to provide specialized background not present in the permanent faculty, but according to the statement the reliance on part-time faculty far exceeds this need. The drive to save money by appointing temporary rather than permanent faculty is also out of proportion to need, the statement says. “[C]ost-driven reliance on part-time faculty and adjunct, non-tenure-track faculty occurs on a scale so large that it lessens job opportunities in the academic professions and lowers salaries for entering full-time, tenure-track faculty, thereby diminishing the quality of recruits attracted to

and retained in undergraduate instruction and the academic profession.” The statement also outlines many ways in which overreliance on part-timers weakens the ability of academic departments to provide high-quality education.

The statement ends with a set of policies and guidelines for handling part-time appointments. For example, the guidelines suggest that institutions should recruit and select the best available candidates for part-time positions and consider these people for tenure-track positions for which they are qualified. The statement also advocates long-term appointments, access to benefits, and opportunities for professional advancement. The statement lists a number of actions to be taken that will stimulate the acceptance of these guidelines.

The AMS Committee on the Profession will study the statement and possibly make a recommendation for action to the AMS Council. The entire statement will be published in *Academe*, the magazine of the American Association of University Professors, and may be found on the AMS Web site at <http://www.ams.org/committee/profession/>. For further information on the subject of part-timers, see the article “Changes in Mathematics Faculty Composition, Fall 1990 to Fall 1996”, by James W. Maxwell, *Notices*, November 1997.

—Allyn Jackson

AMS Web Page for Public Awareness

As this article is being written (November 1997), What’s New in Mathematics (WNIM), the public awareness component of e-MATH, is celebrating its first birthday. WNIM aims to have items of interest to both mathematicians and non-mathematicians and has a wide variety of items: articles specially written for WNIM, links to other parts of e-MATH, links to other Web sites, and references to print media.

AMS statistics show that WNIM is one of the most heavily accessed areas of e-MATH. The WNIM home page had just over 4,000 hits last month, and hits to all WNIM pages totalled over 12,500. Pages that attracted the most interest include: Fermat's Last Theorem (a continuing favorite), the PBS program on Fermat's Last Theorem, the "cover" page (which was about the centenary of the death of J. J. Sylvester), "The Bible Code", "science wars", primes, and Math Digest and Math News.

WNIM has a worldwide scope. Countries in addition to the U.S. which recorded at least 100 hits last month were: Australia, Brazil, Canada, France, Germany, India, Italy, Japan, South Korea, Spain, Sweden, and the United Kingdom. Also, as far as can be determined from HTTP statistics, WNIM appears to be achieving its goal of reaching beyond the mathematical community. Domestic hits included 2,377 from domains .edu, 2,790 from domains .com, and 1,376 from domains .net.

WNIM is accessible from the AMS home page or directly at <http://www.ams.org/new-in-math/>.

—Steven H. Weintraub, WNIM Editor

New PBS Series on Mathematics to Air in Spring

Coming to PBS in spring 1998 from WQED Pittsburgh, the series *Life by the Numbers* reveals the important role that mathematics plays in sports, work, education, exploration, chance, technology, and life in general. This exciting series invites public television stations and other organizations to partner in local outreach activities that promote mathematical literacy in our complicated age.

In 1990 after the publication of the mathematics education Standards of the National Council of Teachers of Mathematics (NCTM), WQED set out to see if public television could partner with mathematics teachers to overcome negative student and parent attitudes toward the subject. Building on NCTM's urging that students learn mathematics by engaging in real-world problem solving, WQED looked for ways to show the thousands of aspects of modern life that have mathematics at their core. *Life by the Numbers* is the fascinating result.

Hosted by actor Danny Glover, the series profiles dozens of people who use mathematics everyday—some in mundane ways that we overlook in our own lives, and some in esoteric but intriguing ways. Graphic artists, scientists, astronomers, athletes, artists, businesspeople, pollsters, computer programmers, even a bride planning her wedding—these are just a few of the people who find mathematics to be an indispensable tool.

What follows are brief descriptions of each of the series programs.

"Patterns of Nature": Biological scientists are learning new information about life thanks to new applications of mathematics. This program depicts the relationship between geometry and body size, a mathematical model for animal coat patterns, the application of mathematical knot

theory to the study of viruses and DNA, the use of fractals in studying forms in nature, and a computer model for evolution.

"Seeing Is Believing": A major milestone in the connection between mathematics and art was the Renaissance discovery of perspective, which enabled artists to depict depth in paintings. Today mathematics is the basis for a variety of special visual effects that stretch beyond realism. This program describes special effects in movies and the use of mathematics and graphic arts to visualize the birth of the universe, the fourth dimension, and other complex ideas.

"The Numbers Game": Mathematics in sports goes beyond scores, times, and batting averages. Today's athletes, coaches, and trainers are linking up with mathematicians and scientists to fine-tune their performances. This program looks at football teams, ice skaters, sailboat designers, and triathletes, just some of the sports figures who rely on mathematics-based technologies to excel in their events.

"Chances of a Lifetime": What do statisticians, gamblers, pollsters, insurance representatives, and brides have in common? Their reliance on numbers to answer some very important questions. These are not just any numbers, but numbers that help describe risk and probability—the likelihood that something will happen. Just as a gambler bets on the probability that a certain number will turn up on a pair of dice, an insurer banks on the probability that a flood won't happen, and a bride hopes it won't rain on her wedding day.

"Shape of the World": It is impossible to accurately depict a three-dimensional object on a two-dimensional surface. Yet we use maps every day because mathematics enables mapmakers to overcome the distortions. This program briefly describes the history of mapmaking, then shows advanced uses of maps today beneath the sea, in the sky, and beyond.

"A New Age": Computers are reshaping our world. This revolution is based on the simple mathematical logic that is the basis of the computer. This program shows computer software developed to respond to human wishes and explores mathematical applications that help us communicate, understand our needs, and predict our future.

"Making a Difference": For many, memories of math class are of story problems or endless number problems that did not connect with their lives. This program shows some of the fascinating ways educators are making mathematics more relevant and interesting, including a lesson drawn from an Edgar Allan Poe story, an all-girl math class, a teacher-development project, and a program for families.

Nationally, *Life by the Numbers* educational materials are going directly to schools and other organizations to support educational use of the series and to raise awareness of mathematics. High school mathematics teachers will receive a series poster and teaching guide. Such national organizations as Family Math, the National Urban League, Girls Incorporated, and Girl Scouts of the U.S.A. are distributing series Activity Guides to their local affiliates who conduct mathematics-related programs.

In addition, members of organizations like the AMS are invited to participate in local outreach activities designed

to enhance the impact of the series and involve children and their parents in events that encourage mathematics education. Two primary activities include “Math Trails”, pathways through places with math challenges at stopping points, and “Math Career Awareness Days” events, in which people in math-related careers describe their jobs to young people. AMS members interested in volunteering to help out with such activities should contact the education/outreach director of their local public television station.

More information on the series can be found on the World Wide Web at: www.pbs.org/math, www.mathlife.wqed.org, www.ti.com/calc/. *Life by the Numbers* has been endorsed by the Mathematical Association of America, the American Mathematical Society, and the American Association of School Administrators. Exclusive corporate support for *Life by the Numbers* is provided by Texas Instruments. Major support comes from the National Science Foundation and the Alfred P. Sloan Foundation. Additional support was provided by the McDonnell Douglas Foundation and Alcoa Foundation. Check local listings for broadcast times in your area.

—*from Life by the Numbers Announcement*

Mathematics Awareness Week 1998

Mathematics Awareness Week (MAW) 1998 will be officially celebrated April 26–May 2. The Joint Policy Board for Mathematics has selected “Mathematics and Imaging” as the 1998 MAW theme.

Mathematics Awareness Week materials, including the MAW poster will be posted on the MAW Web site, <http://forum.swarthmore.edu/maw/>. Additional information can be found and MAW-related activities discussed on MAW-list, the e-mail discussion list. To be included on the list send a message to e-mail: listserv@enterprise.maa.org. Leave the subject line blank, and write in the body: `subscribe maw`.

Institutions and organizations planning MAW activities may wish to post them on MAW-list and on their WWW sites. Links from the postings to the MAW Web site may be arranged with Melissa Dershewitz, e-mail: dersh@forum.swarthmore.edu.

To assist in 1998 planning, information on 1996–1997 activities are currently posted on the MAW Web site, with links to many individual MAW Web pages.

—*JPBM Announcement*