



NORTHERN ILLINOIS  
UNIVERSITY

## Mathematical Sciences Alumni News

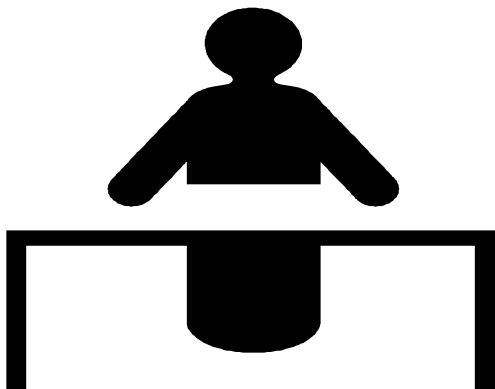
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### Greetings!



A warm hello to all alumni of the Department of Mathematical Sciences at Northern Illinois University! Once again it is our pleasure to send you news from the past year--including notes you submitted to us concerning your whereabouts and doings. We invite your comments on this issue along with notes on your activities. And we wish you well in all your endeavors.



### Chair's Corner

by *Professor William Blair*

This has been another challenging year for Northern and the Department of Mathematical Sciences. Like all public institutions in Illinois and around the nation, we have been faced with budget cuts while at the same time enrollment has been increasing. This year is the 20th anniversary of the approval of the Ph.D. in mathematical sciences at Northern by the Illinois Board of Higher Education. Since our first Ph.D. student graduated

in 1989, there have been over 50 doctoral graduates of our department. With its emphasis on breadth in the mathematical sciences and its non-traditional approach including the acclaimed Applications Involvement Component, the Ph.D. program at Northern has achieved an international reputation and placed its students at universities and industries throughout our state, nation and several foreign countries. A list of our graduates appears on the departmental website:

[www.math.niu.edu/programs/grad/phd.html](http://www.math.niu.edu/programs/grad/phd.html)

For the second year the department hosted a Reception and Award Ceremony on a Sunday afternoon in late April in the Skyroom of Holmes Student Center. This was a festive occasion for the award recipients, their families and friends, and members of the faculty. We celebrated the accomplishments of many hard working students while enjoying refreshments and a beautiful view of campus on a sunny spring day. Again this year the commencement ceremonies were held in the spacious new Convocation Center.

There has been great sadness this year as well. Professor Emeritus James Beach passed away on June 25, 2004. Professor Beach joined the NIU faculty in 1953. He served as department chairman for several years during the 1960s. The importance of Jim's leadership, along with that of Professors John Christiano, Clarence Hardgrove, and Harvey McKenzie, in establishing our master's program and in preparing the department to eventually offer the Ph.D. degree cannot be overestimated. Because of their foresight the department was in the position to recruit faculty with the research background necessary to direct doctoral dissertations. The warm welcome that Jim and his wife, Helen, gave new faculty members is fondly

remembered by many of our current senior faculty. After retiring in 1975, he spent summers in DeKalb and winters in Tucson, Arizona. Jim will be greatly missed by his friends and former students and colleagues.

This was the seventh year in which the *Huskie Telefund* has solicited donations on behalf of the department from our alumni. We greatly appreciate your generous contributions to our scholarship funds. Each year the number of contributing alumni and the amount of their contributions have grown. We especially appreciate your support during the current times of very tight budgets. Your comments to the student callers about our department, its faculty, and its programs are passed along to us, and we find these to be encouraging and helpful. If you were not able to donate this year we hope you will consider helping in the future. We also greatly appreciate your loyal support of our endowed scholarship funds, and your direct contributions to the department.

This is our 13th annual Alumni Newsletter. They have all been edited by Professor Linda Sons, and I wish to thank her for producing another superb issue.

Let us hear from you. If you are in DeKalb, please stop by Watson Hall 320 and say hello.

## A Good Question!

**QUESTION:** What do a Grist Mill, 19 Grade 3-5 Elementary Teachers, and the U.S. Department of Education have in common with the NIU Department of Mathematical Sciences?

**ANSWER:** Problem Solving in Geometry, Measurement, Statistics and Probability.

**SOLUTION:** Professor Alan Zollman, with the Area II Regional Office of Education and Western Illinois University, received an Illinois Mathematics and Science Partnerships Program Grant to do outreach working with elementary and middle grade teachers on mathematics teaching. As a part of the program, Alan taught MATH 596 this summer on the third floor of the restored Grist Mill at the Franklin Creek Nature Center in

Franklin Grove. The goals were to increase teachers' content knowledge and skill in preparing content-rich, contextual learning experiences that will increase the achievement of diverse groups of students.

Not much corn was ground, but a lot of professional development occurred. Professor Zollman and the R.O.E.s will aid the teachers' continuation of their own professional development during the academic year through action research on their own students' achievement. "It's a win-win situation," says Alan. "When you provide dedicated professionals with the expertise and have the support of the R.O.E.s and the school districts, kids get to learn tons of math! Oh yeah, those ISAT scores go up too."

Professor Ellen Hines, also of the NIU Department of Mathematical Sciences, is supporting the grant by acting as the program's evaluator.

**GRANT:** Clemens, A. J., Sandgren, A., Olson, M., Zollman, A., & Mann, B. (2003). Northwestern Illinois Math Science Partnership "NIMS - in the Middle." Illinois Mathematics and Science Partnerships Program/ ISBE/U.S. Department of Education.

**PROGRAM PARTNERS:** Area II Regional Office of Education

Western Illinois University

Northern Illinois University

Atwood Outdoor Education Center

U.S. Army Corps of Engineers

Franklin Creek Natural Area

Regional Office of Education #4

Regional Office of Education #8

Regional Office of Education #16

Regional Office of Education #28

Regional Office of Education #35

Regional Office of Education #43

Regional Office of Education #44

Regional Office of Education #47

Regional Office of Education #49  
 Regional Office of Education #55  
 Rockford Public Schools #208  
 Savanna School District #300  
 DeKalb School District #428  
 Kewanee School District #229  
 Fieldcrest School District #6  
 LaSalle Elementary School District #122  
 Woodstock CUSD #200  
 Rochelle CCSC #231  
 Steward Elementary District #220  
 Rock Island/Milan School District #41  
 Sterling CUSD #5

## **NCTM Standards Writer Visits**

Students and faculty of the Department of Mathematical Sciences had the opportunity for interaction in June with Professor Thomas Romberg when he visited campus. Internationally recognized for his expertise in mathematics education, Professor Romberg chaired the writing committee for the National Council of Teachers of Mathematics **Curriculum and Evaluation Standards for School Mathematics**, released in 1989, and for NCTM's **Assessment Standards for School Mathematics**, released in 1995. He is currently involved with an international committee working on assessment of student's mathematical literacy. Professor Romberg is a recipient of NCTM's Lifetime Achievement Medal in Leadership, Teaching, and Service. While on campus he gave a colloquium lecture in which he noted research methods for classroom studies and conducted a research seminar where the implications of the meaning of mathematical literacy for school mathematics was the topic.

## *Seminar Speakers*

Every year the seminar for the applications involvement component of the NIU Ph.D. program features speakers among the graduate students reporting on their field experience and "outsiders" among the many who work for firms or institutions whose work encompasses significant application of mathematics. Outsiders for the year 2003-2004 included Liqun Chi of Caterpillar, Professor R. Coulter of Argonne National Laboratory, Manoranjan N. Dhaubhadel of CNH Global, Joshi Dhananjay of Motorola, Professor Peter Farbman of NSA, Professor John Milton, Department of Neurology, University of Chicago. The Department of Mathematical Sciences is grateful to all outsiders for their contributions to education and research.

### ILLINOIS COUNCIL OF TEACHERS OF MATHEMATICS

56th ANNUAL MEETING

*"Learning Never Ends"*

**OCTOBER 15, 16, 2004**

*Renaissance Springfield Hotel, Springfield,  
Illinois*

Friends and alumni of NIU are invited to a reception before the banquet on Friday, October 15th, at 4-6 p.m., in the Renaissance Hotel. Look for the room number on the ICTM message board at the conference!

### *Math Alum is Award Recipient*

The 2003 College of Liberal Arts and Sciences Outstanding Alumni Award went to Lorene K. Steffes. Lorene holds a 1968 B.S. in mathematics and a 1982 M.S. in computer science. Lorene grew up in nearby Elburn, Illinois, and taught ninth grade for several years in West Aurora after receiving her B.S. degree. She followed teaching with a position as programmer analyst for DeKalb Ag Research. After some years with Ameritech and AT&T she became CEO in 1997 of Transarc

Corporation in Pittsburgh. From this executive position at the IBM subsidiary, she moved to White Plains, New York, to serve IBM as vice president of global electronics industry, business growth and on demand solutions.

# Congratulations!

## Congratulations to the New Doctoral Recipients



We congratulate those completing their Ph.D. in mathematical sciences in August 2004:

Kari Fowler with her dissertation "Normal Functions, the MacLane Class, and Complex Differential Equations in the Unit Disk," written under Professor Linda Sons.

Kevin Haertzen with his dissertation "Some Geometric Aspects of Sturm-Liouville Problems," written under Professor Hongyou Wu.

## Departmental Awards



The 26th annual Award Ceremony was held on April 18, 2004, at the Holmes Student Center Skyroom. At the reception, Department Chair William Blair gave out the following awards:

**The D.R. Ostberg Award**, given for academic achievement to a continuing student, went to *Dana Jenn*.

**The Stelford Prize**, given to the graduating senior with the highest GPA in mathematics courses, went to *Michael Bednarz*.

**The Gail Masters Gallagher Memorial Scholarship**, given to an outstanding student majoring in the mathematical sciences who will have junior class rank during the next academic year, went to *Olga Garcia* and *Jody Yednock*.

**The Dean's Award**, given to a graduating senior for academic excellence and services, was awarded to *Matthew Grugel* and *MarySue Noble*.

**The (departmental) Chair's Award**, given on the basis of academic achievement and service to the department, went to *Jennifer Ramsay*, while the Director's Award went to *Nicole Gaspar*.

**Certificates of Merit**, given on the basis of academic achievement, went to: *Brandon Armstrong, Michael Bednarz, Katie Hernacki, MarySue Noble, Jennifer Ramsay, Tara Cotsonas, Dana Jenn, Udaya Ramu Valluri, Shaolin Wang*.

**Honorable Mention Awards**, given on the basis of academic achievement, went to: *Dana Bell, Maxim Bushmakin, Sara Carroll, Nicole Gaspar, Stephanie Gorman, Matthew Smith, Thomas Weichle, David Zinke, Sean Weldon, Aiming Yang*.

## The Margariete Montague Wheeler

**Awards**, recognizing the contributions of Professor Wheeler in mathematics education, were given in two groupings. **The M.M. Wheeler Scholarship** recipients were *Jonathan Schaefer*, *Rebecca Stefanelli*.

**The M.M. Wheeler Teaching Award** recipients were *Stephanie Gorman*, *MarySue Noble*, *Joseph Szabo*, and *Lisa Grilli (Honorable Mention)*.

**Certificate of Teaching Excellence** went to *Todd Corley*.

## The 19th Annual NIU Math Contest



Matthew Drury and Michael Konrad, both junior mathematical sciences majors, duplicated their respective finishes from 2003 to capture

the top two places in the 2004 Northern Illinois University Department of Mathematical Sciences Math Contest, held March 17. Drury, from Deer Park, Illinois, took first place and an award of \$75 in the 19th Annual competition; while Konrad, from Lisle, Illinois, won second place and a \$50 prize. Bradley Brown, a freshman computer science major from Silvis, Illinois, finished third to earn \$25.

As in previous years, the contest exam was open to all full-time undergraduates at NIU. A dozen students participated. Each contestant turned in solutions to a choice of six out of 11 problems. Freshmen and sophomores had fewer restrictions on their choices than did juniors and seniors.

Professor Harvey Blau supervised the contest. Problems on the exam ranged from high school level to multivariable calculus to linear and abstract algebra.

## Some problems from the exam:

1) Find all positive integers  $m$  so that the lines  $13x + 11y = 700$  and  $y = mx - 1$  meet in a point whose coordinates are integers.

2) If  $x + y = A$  and  $xy = B$ , find  $x^4 + y^4$  in terms of  $A$  and  $B$ .

3) Find the points on the surface

$x^2 + y^2 - z^2 = 1$  that are closest to the point  $(1, 2, 0)$ .

4) Suppose  $a$  and  $b$  are elements of a finite group such that  $b^{-1}a^{-1}ba = ab$ . Prove that  $a$  and  $b$  have the same order.



## ICTM Regional High School Mathematical Contest

About 350 secondary school students, along with their teachers and coaches, were on the NIU campus on Saturday, February 28, 2004, to participate in an ICTM Regional Mathematics Contest. Students from 15 high schools in northern Illinois competed individually and in teams in 11 mathematics events. The participating schools were:

Antioch, Batavia, Buffalo Grove, Conant, Elk Grove, Fremd, Geneva, Lake Forest, Lake Zurich, Rolling Meadows, Round Lake, St. Charles, Schaumburg, Streamwood, West Aurora.

It was an exciting day run well by a committee of faculty led by Professor Peter Waterman.

# MATH CLUB

Activities for the year included the annual "First Year Teacher's Report" featuring Jennifer Howe of Waubonsie Valley High School, Lisa Fleming of Indian Creek Middle School in Waterman, and Matt Hawley from Crystal Lake South High School.

New this year was a "Math Walkathon" whereby students walked from the Clock Tower at the corner of Lincoln Highway and First Street in DeKalb via trails through the woods to the site of the Pumpkin Fest in Sycamore.

Professor Douglas Bowman gave a featured talk at the spring meeting which also served as induction date for new Pi Mu Epsilon members.

**Members this year were:** Chevelle Bandsey, Kenneth Beynon, Kristin Ellis, Erin Engnell, Nicole Gaspar, Stephanie Gorman, Ken Moore, Nichole Nelmark, George Sparks and Frank Wapole.

## Putnam Contest

The 64th annual William Lowell Putnam Mathematical Competition was held on Saturday, December 6, 2003. A dozen challenging problems were featured on the examination including the following:

$$\sin x + \cos x + \tan x + \cot x + \sec x + \csc x$$

for real numbers  $x$ .

The NIU team members were Ben Thomas and Milica Kozomora.

## Abel Prize



The mathematician's equivalent of the Nobel Prize was awarded by King Harald of Norway in Oslo University Aula on May 25, 2004, to Professor Isadore Singer and Sir Michael Atiyah for their discovery and proof of the index theorem.

Professor Singer is from the Massachusetts Institute of Technology, while Sir Atiyah is from the University of Edinburgh. The prize committee called the theorem "one of the great landmarks of the 20th century" and observed that "in the forty years since its discovery the theorem has had innumerable applications, first in mathematics, and then, beginning in the late 1970s, in theoretical physics." The ceremony presenting the prize was filmed and is available for viewing on a website multimedia page. After the announcement of the prize, Professor John Rognes of the University of Oslo gave a lecture explaining the theorem which connects analysis and topology in a beautiful and useful way for describing the number of solutions of a system of differential equations. Professor Rognes' lecture is also available on the web.

*Professor Blair Wins Top*

*Award!*

When NIU's 2004 Presidential Teaching Professors were announced, many people were pleased to know Professor William Blair was one of them. The annual recognition, which goes to at most three faculty members in a year, is the university's highest honor for outstanding teaching and can only go to a full professor who has exhibited excellence in teaching for years. Many alumni will applaud the choice.

An expert in the algebraic area of ring theory, Professor Blair will be remembered by alumni for his teaching of abstract algebra, which he did frequently. He also often taught calculus classes, but has been one of the most diverse members of the faculty having taught 34 different undergraduate and graduate courses. Even if an undergraduate mathematics major was taught abstract algebra by another faculty member, Professor Blair's influence may still have been there since the standard text book for the undergraduate course has been the book he wrote jointly with professor John Beachy.

Professor Blair earned his Ph.D. from the

University of Maryland and came to NIU in 1971. He served the department for several years as director of graduate studies, and for the past 14 years has served as chair of the department. Despite the full-time nature of being chair, however, Professor Blair chooses to continue teaching, maintains a door open to students, and receives outstanding teaching evaluations. His passion for mathematics and his commitment to students shows through in all he does. He is both a top scholar and an extraordinarily effective teacher.

*Congratulations, Professor Blair!*



## Faculty Comings and Goings

Professors Anders Linner and Diana Steele took full-year sabbatical leaves in 2003-2004. Professors Fred Bloom and Tom O'Gorman each took one semester sabbatical leaves--Professor Bloom in spring 2004 and Professor O'Gorman in

fall 2003. Also on leave for 2003-2004 was Professor Christine Hurlburt.

New on the staff for 2003-2004 was Professor Gleb Sirotkin, Mekonen Bekele, and Ms. Georgiana Henry.

Faculty visitors for the year were Professors Fakir Akyildiz and Xifang Cao.

## Officers of the Department of Mathematical Sciences

Chair:

Professor William Blair

Assistant Chair:

Professor John Wolfskill

Director of Undergraduate Studies:

Professor Dave Rusin

Director of Graduate Studies:

Professor Bernard Harris

Coordinator of Applications Involvement:

Professor Hamid Bellout

Director of the Division of Statistics:

Professor Sudhir Gupta

Coordinator of Teacher Certification:

Cynthia Stecher

Systems Manager:

Professor Eric Behr

## Web Page

Look for announcements regarding the latest activities in the department at the website [www.math.niu.edu](http://www.math.niu.edu)/Also full of useful information is the page for the statistics division at [www.math.niu.edu/StatDiv](http://www.math.niu.edu/StatDiv)



## News According To You

Each year we invite you to share news and comments. Here are some items we heard this year!

After completing their degree and teacher certification requirements, NIU graduates have accepted teaching positions in Illinois and elsewhere. Here's the list we have:

Sara Carroll--Bolingbrook High School

Tim Bruell--Dundee Crown High School

Dane Bell--Indian Creek High School

MarySue Noble--Cary Grove High School

Christine Fleshman--Ottawa High School

Lisa Grilli--St. Charles East High School

Sara Harnden--Harlem High School in Machesney Park

Peter Beke--Belvedere High School

Aaron Moskowitz--Somonauk High School

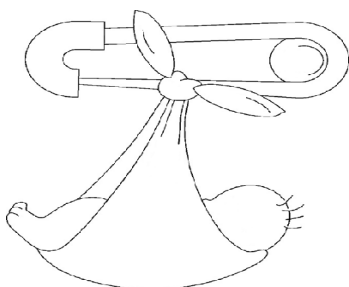
Brad Frey, who finished in spring 2000, has just finished his fourth year at Johnsburg High School. Last year he was Walmart Teacher of the Year in the McHenry area, and this year was selected for **Who's Who Among America's Teachers** and received his school's teacher of the year award.

### Other News:

The stork delivered bundles of joy for two former Ph.D. recipients this spring. Professor Bharath Sriraman

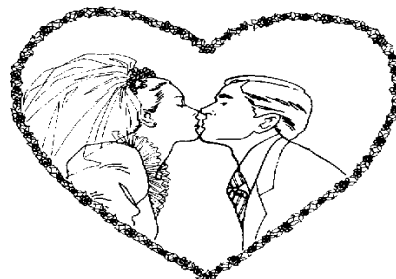
(Ph.D. 2002) and his wife welcomed son, Jacob, while Professor Djamel Benbourenane (Ph.D. 2001) and his wife welcomed son Elias. Professor Sriraman is a faculty member at the University of Montana and Professor Benbourenane is on the faculty at the United Arab Emirates University at Al-Ain, [U.A.E.](#)

Sheri and Gene Blome (both '92) recently celebrated the birth of their fourth child, Evelyn,



who joined Abigail, Jeremy, and Maggie. Sheri (nee Cocciemiglio) homeschools the children, while Gene works as production manager for Speedy Sign-A-Rama in Buffalo Grove, Illinois. They make their home in Round Lake Beach, Illinois.

## Wedding Bells



Wedding Bells rang over the July 4th weekend for Professor Harald Ellers. He and Professor Tamara Hummel entered married life in Meadville, Penn., where Professor Hummel serves on the faculty of Allegheny College.

## Happy Retirement!!

Russ Forrer ('70 and '73) of Yorkville, Illinois, notes that after 34 years of teaching in School District 131, East Aurora, he has retired. Part-time work is as a mathematics consultant for McDougal/Littel publishers.

### Additional Thoughts From You:

James E. Reiland ('61 and '66) of Aurora, Illinois, had 2003-2004 as his 25th year at Marmion Academy and his 43rd year as a mathematics teacher and coach. Coaching duties were with freshman football and varsity baseball, while teaching was to include four classes in Algebra Two and Geometry.

Edward R. Brogly ('53) of Elgin, Illinois, shared fond memories of Professor Clarence Hardgrove in



a note after last year's newsletter. Brogly was an instructor in mathematics at NIU in '58-'59 and noted that as an outgrowth of concerns developed while teaching, he went on to becoming a school counselor and later professor of counselor education at Northeastern Illinois University.

Kevin Helmick ('90) was for the ninth year last fall on the mathematics faculty at Benet Academy in Lisle, Illinois. He is an assistant coach for the mathematics team and the girls' volleyball team. He resides in Willowbrook, Illinois.

Gary Wang ('96) of Lake Zurich, Illinois, writes that he recently became an associate of the Casualty Actuarial Society. He and his wife, Diana ('98, nee Bovard), became proud parents of Lillian Margaret in May 2003.

Dr. Patricia R. Carlson, M.D. ('73, formerly Boeschen), received an M.D. from Northwestern University Medical School in 1999 and started a family practice residency in Illinois. She worked as a poison specialist for the Illinois Poison Center from 2000 to 2003 and passed the certification examination in toxicology in May 2003. Carlson wrote of plans to continue study/research in alternative medicine, including ethnobotany and herbal medicine, through travels to a number of South American and Central American countries to learn about medical usage of native plants and healing practices. Plans included setting up an Alternative/Complementary Medical Practitioner practice in both Florida and Chicago and possibly developing a line of herbal medications to be marketed nationally. Her home address is reported as in Dunedin, Florida.

## Alumni of 25 Years

Congratulations on the 25th anniversary of the class of 1979. Here is a listing of the Class of 1979 and their current hometowns. If you can update some of the information, we would appreciate your help.

Mr. Tom J. Bashaw, Tomah, WI

Mrs. Diane Lynn M. Benjamin, Platteville, WI

Mrs. Mary Amy Brachman, Dubuque, IA

Mr. Robert Geo Burns, Jr., Downers Grove, IL  
Ms. Debbie Ann Cernauskas, Downers Grove, IL  
Ms. Lori Rae Coyle, Bradenton, FL  
Mr. Thomas Charles Dawe, Northborough, MA  
Mr. Michael Roy Denen, San Diego, CA  
Mr. Timothy Edward Dolson, Palm Harbor, FL  
Mr. Martin James Donnelly, DeKalb, IL  
Ms. Laura Dow, Arlington Heights, IL  
Mr. Kenneth Paul Ekins, Lisle, IL  
Mrs. Carol Annette Falzone, Rockford, IL  
Dr. Carol Joanne Feltz, St. Charles, IL  
Mrs. Betty June Finkle, Rock Falls, IL  
Mr. Lee Edwin Foster, Raleigh, NC  
Mrs. Karla Fry, St. Charles, IL  
Ms. Nancy Barbara Goerg, Berwyn, IL  
Mr. Kenneth J. Goodheart, Schaumburg, IL  
Mr. Hassan Nadzirin Haji, Huntington, WV  
Mr. Barry Philip Hartman, Vernon Hills, IL  
Mrs. Lorri A. Kleinmuntz, Vernon Hills, IL  
Mr. William J. Kohne, Downers Grove, IL  
Mr. Norman K. Kwok, Buffalo Grove, IL  
Mrs. Barbara A. Lamb, Cary, IL  
Mr. Thomas Michael Leonard, Mettawa, IL  
Mr. Steven N. LeVon, Evanston, IL  
Mrs. Stephanie Lynn Millen, Batavia, IL  
Mr. Daniel Arthur Nottke, Wheaton, IL  
Ms. Julie E. O'Reilly, Rogers Park, IL  
Mr. Patrick A. O'Shea, Calumet Park, IL  
Mrs. Cynthia M. O'Sullivan, Alpharetta, GA  
Mr. George Fotis Paganis, Gurnee, IL  
Ms. Maridel B. Paragas, Barrington, IL  
Ms. Jo Ann M. Pelletiere, Chicago, IL  
Mr. Gerald L. Phillips, Libertyville, IL  
Mr. Josef Ratschan, Aurora, IL  
Ms. Sandra Lee Revis, Gurnee, IL  
Mr. Anton Schick, East Lansing, MI  
Dr. Rainer Schochat, Lemont, IL

Mr. Raymond A. Siwek, Morristown, NJ  
Mr. Arthur Douglas Smet, Rochester, MN  
Mrs. Mary E. Southwick, Lisle, IL  
Mr. Keith Lane Spacapan, Bloomfield Hills, MI  
Mr. Gary Richard Stevens, Edwardsville, IL  
Mr. Ronald Gene Truesdale, Winnebago, IL  
Mr. Michael C. Van De Veire, Dixon, IL  
Mrs. Kathleen C. Whildin, Sugar Grove, IL  
Ms. Rita C. Wojtylewski, Downers Grove, IL

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