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**Fall 2005 Meeting Notice**  
**Northeastern Illinois Chapter**  
**American Statistical Association**

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**DATE:** Thursday, October 20, 2005 (Luncheon at 11:30 a.m.)

**LOCATION:** Renaissance Chicago North Shore, 933 Skokie Boulevard, Northbrook, Illinois 60062 (847) 498-6500.

**RESERVATIONS:** Advance reservations are required and must be received by 4 p.m., Thursday, October 13, 2005. Cancellations cannot be accepted after this date, and "no shows" will be billed. Registration is transferable except for the \$5 in membership dues (\$1 for students) that is included in the non-member fees.

<b>FEES:</b>	<b>Luncheon &amp; Sessions</b>		<b>Sessions Only</b>		<b>NICASA</b>
	<b>Member</b>	<b>Non-Member</b>	<b>Member</b>	<b>Non-Member</b>	<b>Membership Only</b>
	<b>NICASA</b>	<b>NICASA</b>	<b>NICASA</b>	<b>NICASA</b>	
<b>Regular</b>	<b>\$55.00</b>	<b>\$60.00</b>	<b>\$30.00</b>	<b>\$35.00</b>	<b>\$5.00</b>
<b>Full-time Student</b>	<b>\$11.00</b>	<b>\$12.00</b>	<b>no charge</b>	<b>\$1.00</b>	<b>\$1.00</b>

**Since membership is held on a calendar year basis, if you have not expressly joined the Chapter this year, you should pay the non-member rate. Doing so will make you a member for 2005.**

**PAYMENT:** Make checks payable to: Northeastern Illinois Chapter, ASA

**REGISTRATION:** Please mail, e-mail or fax (no call-ins please) the registration form (below) to:

**Jimmy Sun**

D-07B2 AP5N

Abbott Laboratories

100 Abbott Park Road

Abbott Park, IL 60064-3500

Phone: (847) 937-9776

Fax: (847) 935-3320

Email: [jimmy.sun@abbott.com](mailto:jimmy.sun@abbott.com)

**PROGRAM:**

11:00 – 11:30 Registration

11:30 – 12:30 Luncheon

12:30 – 13:30 Speaker: Anita Ross – Logistic Regression

13:30 – 13:45 Break

13:45 – 14:45 Speaker: Tom O-Gorman – Adaptive Tests of Significance and Confidence Intervals

14:45 – 15:00 Break

15:00 – 16:00 Speaker: Denise Scholtens – An Algorithm for Local Modeling of Protein Complexes

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**NORTHEASTERN ILLINOIS CHAPTER MEETING REGISTRATION/MEMBERSHIP DUES**

Name \_\_\_\_\_

Company \_\_\_\_\_ Department \_\_\_\_\_

Street Address \_\_\_\_\_ Work \_\_\_\_\_ Home \_\_\_\_\_

Telephone (\_\_\_\_) \_\_\_\_\_ Work \_\_\_\_\_ Home \_\_\_\_\_ E-mail address \_\_\_\_\_

I will be attending: \_\_\_ Luncheon and Sessions \_\_\_ Sessions only \_\_\_ Membership Dues Only

2005 NIC/ASA member prior to this registration? (See FEES for details) \_\_\_ Yes \_\_\_ No

Membership Type: (1) Regular (Corp./Govt.); (2) Academic (Univ./H.S.); (3) Full-Time Student

Tax Identification Number 52-1665956

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# DIRECTIONS TO THE MEETING

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**Location:** Renaissance Chicago North Shore  
933 Skokie Boulevard, Northbrook, Illinois 60062  
(847) 498-6500.

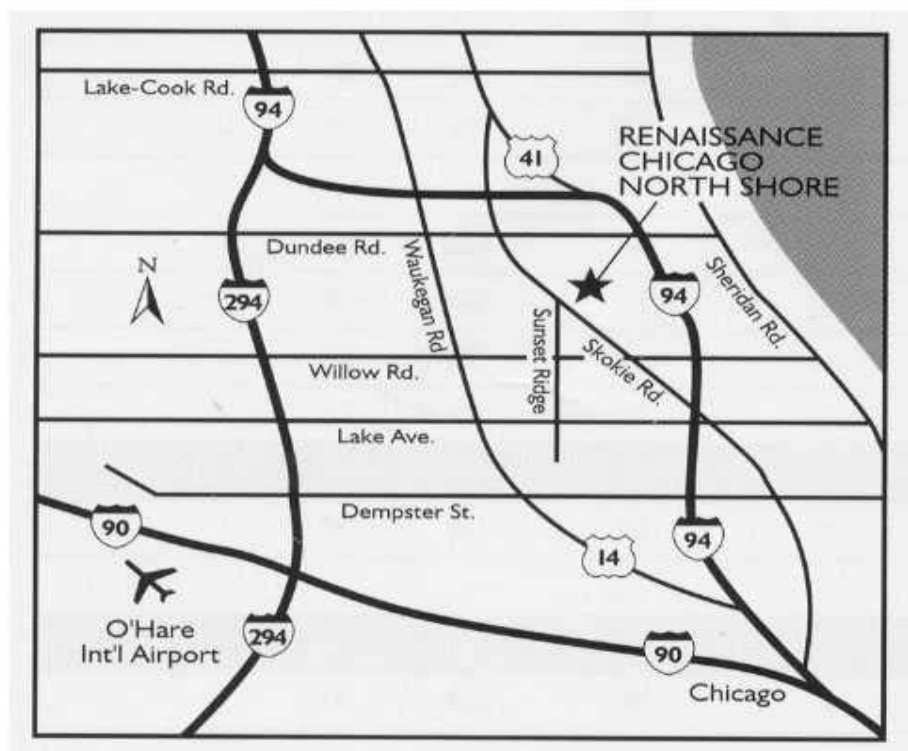
**From O'Hare:** Take I-90 to I-294 North to Willow Road. Exit Willow Rd. East (turn right) to Sunset Ridge Rd. (4.5 miles). Turn left on Sunset Ridge Road. Go two miles to the end of street. Renaissance Chicago North Shore Hotel is in front of Stop Light.

**From Chicago:** Take I-94 North to the Edens Expressway. Exit Dundee Road West. Turn left on Skokie Boulevard. Hotel is one block South on the Left.

**From the North:** Take I-94 South (stay in the two left lanes while approaching I-94/I-294 [sign says "94 East to Chicago Edens Expressway."]) Exit I-94 at Waukegan Road and turn right. Go to Dundee Road. Turn left then turn right on Skokie Boulevard. Hotel is on the left.

Alternative directions can be obtained at [www.mapquest.com](http://www.mapquest.com).

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## 22nd Annual Fall 2005

### **Logistic Regression**

Sequential Logistic Regression: Modeling Risk Factors and Child Outcomes

This presentation will overview logistic regression analyses and present the results of a study in the area of social-science research. We will begin by going over basic mathematical concepts underlying logistic regression, presenting an example of the simplest case of logistic regression with a single (binary) predictor. The process of inference and the interpretation of the odds-ratio will be explained. A multivariate example will be described in which logistic regression was used to explore the validity of a model of the association between certain risk factors and short- and longer-term outcomes for high-risk children.

The goal of these analyses was to explore risk factors associated with short- and longer-term child outcomes. The theoretical model guiding the analyses posited that maternal history of trauma, in the form of either loss of one's parent before age 18, or a history of abuse or neglect in one's childhood would be associated with compromised maternal emotional status, evidenced by misuse of alcohol or drugs, clinical symptoms of depression, above average report of psychosomatic symptoms, or hospitalization for psychiatric or substance abuse problems. Maternal compromised emotional status would be associated with dissatisfaction and/or problems in the environment of the family and/or neighborhood. Dissatisfaction and/or problems in the family/neighborhood environment would be

associated with increased risk for domestic violence.

Domestic violence would be associated with poor short-term outcomes for the child. Poor short-term outcomes for children include either having a founded report of child abuse or neglect in the household or experiencing two or more of the following: presence of alcohol or drugs in the body at birth, cognitive delay, a health problem or a hospitalization. Poor short-term outcomes would be associated with poor longer-term outcomes including health problems, cognitive and behavioral developmental delay.

Sequential logistic regression analyses were used to explore the validity of this model of relationships among risk factors and poor short- and longer-term child outcomes. General support for the model was found, but diagnostic examination of the results of the logistic regression analyses revealed some weaknesses.

**Anita A. Ross, Ph.D.**  
**North Park University**

Anita A. Ross, Ph.D., received her Ph.D. from De Paul University in 1990. She has worked as a statistician and research analyst in the general area of health care treatment outcomes for many years. At the same time she taught statistics and research courses at several area colleges and universities. She is currently an associate professor in the School of Adult Learning at North Park University, Chicago Illinois. She is responsible for the mathematics, statistics and computer information systems courses offered through the School of Adult Learning. She continues work as an independent statistical consultant. She has been a long-term member of the NIC, and has served on the executive committee as newsletter editor since 2000.

## **Adaptive Tests of Significance and Confidence Intervals**

In this talk I will describe several methods of performing adaptive tests of significance and adaptive confidence intervals. In the last few years methods have been developed to perform adaptive tests for a subset of coefficients in a linear model. Consequently, an adaptive two-sample test, an adaptive test for a one-way layout, and an adaptive test for any subset of coefficients in a regression model can easily be performed. The advantage of adaptive tests is that, if at least 20 observations are used in the analysis, they are usually more powerful than the traditional tests for non-normal error distributions. For each adaptive test we will compare its performance to the traditional methods and we will show how to perform the test using a SAS macro. We will also describe a method of computing adaptive confidence intervals. By carefully constructing adaptive confidence intervals we find that they are often narrower than the traditional confidence intervals, while they maintain their nominal coverage probabilities.

**Tom O’Gorman, Ph.D.**  
**Northern Illinois University**

**Tom O’Gorman** is an Associate Professor of Statistics at Northern Illinois University. He received his Ph.D. in Biostatistics from the University of Iowa where he worked as a statistical consultant. He also worked as a statistical consultant for the Southwestern Bell Telephone Company. In the last few years his research has been focused on methods to improve the performance of basic statistical procedures.

## **An Algorithm for Local Modeling of Protein Complexes**

Accurate systems biology modeling requires a complete catalog of protein complexes and their constituent proteins. We discuss a graph-theoretic/statistical algorithm for local modeling of protein complexes using data from affinity purification-mass spectrometry experiments. The algorithm readily accommodates multicomplex membership by individual proteins and dynamic

complex composition, two biological realities not accounted for in existing topological descriptions of the overall protein network. A penalized likelihood approach guides the protein complex modeling algorithm. With an accurate complex membership catalog in place, systems biology can proceed with greater precision.

**Denise Scholtens, Ph.D.**  
**Northwestern Medical School**  
**Department of Preventive Medicine**

Dr. Scholtens received a bachelor's degree in mathematics with from Wheaton College in Wheaton, IL in 1997 and a PhD in biostatistics from Harvard University in 2004. In 2004, she joined the Department of Preventive Medicine faculty at Northwestern University and is a biostatistician for the Robert H. Lurie Comprehensive Cancer Center. Dr. Scholtens is interested in the development of methodology for the analysis of high-dimensional bioinformatics data and is an active contributor to the Bioconductor project ([www.bioconductor.org](http://www.bioconductor.org)). She is currently working on local modeling of global protein interactome networks, the joint analysis of these networks with gene expression data, and global measures of network topologies that incorporate experimental design and false-positive/negative observations of edges.

~ Jeffrey Isaacson

## **President’s Report**

The purpose of our chapter is “to foster statistics and its applications and promote the interests of the statistical profession among all groups in the Northeastern Illinois area having an interest in or being concerned with statistical problems.” We are fortunate that we have had a long history of dedicated volunteers committed to serving our membership and making this mission a reality. I want to thank our officers and committee chairs for their excellent contributions to our chapter. I also am grateful to our past officers and committee chairs for their ongoing commitment and efforts to ensure the success of our chapter.

At the Fall meeting, we will elect Chapter Officers for the 2006 calendar year. I am confident that under the leadership of these new officers, NIC-ASA will enjoy another successful year.

We are very appreciative of those committee chairs, listed on the last page of Statfax, who have agreed to continue to serve our chapter in 2006. NIC would like to extend a warm welcome to Carolyn Firszt who has assumed the duties of Arrangement Chair. We continue to ask for volunteers to chair the following committees: Webmaster, Membership Chair, and Newsletter Associate Editor. If you are interested, please contact me at [renee.alpern@med.va.gov](mailto:renee.alpern@med.va.gov) or any one of our officers listed on the last page of this issue. We thank our past committee members Chris Sullivan and Peter Yu (Arrangement Chairs), Paul Cernohous (Webmaster), Jaime Delgado (Membership Chair) and Yang Shen (Newsletter Associate Editor) for their dedicated efforts over the years which benefited our chapter.

I am happy to report that there is a significant improvement in our financial position. In order to maintain our Chapter's solvency, I encourage you to attend our meetings and workshops so we can continue to remain strong.

Students, you are our future and so we encourage you to continue to attend and participate in our chapters meetings and workshops. Also, you have the opportunity to join the ASA for only \$20.00 for two years. You can sign up online at this link: <http://www.amstat.org/membership/index.cfm?function=student&nl=0805>.

Our program chair, Jeffrey Isaacson, along with our program committee members have planned another excellent Fall program which is detailed elsewhere in this issue of Statfax. We look forward to seeing you at this meeting!

~ Renee Alpern

## Thank You to Volunteers

The Chapter would like to recognize and thank the following meeting registration volunteers.

**Fall 2004:** Qian Zhou and Yang Shen of Abbott Laboratories

**Spring 2005:** Ann Hewkin and Carolyn Firszt of Abbott Laboratories

**Summer 2005:** Aimee Loar, Lixin Han and Jaime Delgado of Abbott Laboratories; Lizy Thottapurathu of Hines Cooperative Studies

~ Renee Alpern

## Treasurer's Report

<b>BALANCE 01/01/2005</b>	<b>3,099.59</b>
INCOME	
2005 Spring Meeting	2,016.00
2005 Summer Workshop	10,296.00
2005 Fall Meeting	0.00
Bank Interest	0.00
Total Income	12,312.00
<b>TOTAL ASSETS</b>	<b>15,411.59</b>
EXPENSES	
Name Badges	(57.35)
Bank Charges	(0.58)
New Checks	(33.37)
Purchase of Laser Pointer	(37.24)
AP Stat Teacher Workshop	(107.05)
2005 Spring Meeting	(1,885.42)
2005 Summer Workshop	(5,634.15)
2005 Fall Meeting	(0.00)
Spring Presenter Expenses	(375.00)
Summer Presenter Expenses	(1,965.44)
Total Expenses	(9,994.26)
<b>BALANCE 12/31/2004</b>	<b>5,315.99</b>

Note: The bank balance as of July 31 is \$7,186.67. The presenter of Summer Workshop hasn't cashed the check (\$1,864.11). Also a bank charge from the previous bank in the amount of \$6.57 was never posted.

~ Jimmy Sun

## Fall Meeting

The fall meeting will be held on October 20, 2005, Renaissance Chicago North Shore, 933 Skokie Boulevard, Northbrook, Illinois 60062. The telephone number is (847) 498-6500. Directions to the hotel are available at [www.mapquest.com](http://www.mapquest.com).

If you have special needs, please contact:

- Chris Sullivan (773-327-9607; [csullivan@childrensmemorial.org](mailto:csullivan@childrensmemorial.org)).

~Chris Sullivan

## Nominations for 2005 Chapter Officers

At the business portion of the Fall Chapter Meeting, scheduled for 20 October 2005 we will elect officers for the 2006 calendar year (January 1 – December 31, 2006). The nominees for 2006 Chapter Officers are as follows:

### President-Elect/Program Chair

**Dr. Melvin S. Munsaka** is currently employed as a Project Statistician at Takeda Global Research & Development Center, Inc., (TGRD) in Lincolnshire, Illinois in the Biometrics and Data Management Department where he has been working for over two and half years. Prior to joining Takeda, he worked as a Senior Statistician focusing on Phase II to IV clinical research studies at STATPROBE, Inc. and at LAB Pharmacological Research International. Melvin received his PhD in Statistics from Queen's University, an MSc in Mathematical Statistics and an MEd in Mathematics Teaching Methods, both from McGill University. He has been the recipient of several awards including the Canadian Commonwealth Scholarship, Queen's University Graduate Awards, Research Fellowships, Terry Baxter Award for the Best Education Student, and Hindu Association Award for the Best Student in Mathematics. Melvin has a wide range of therapeutic work experience within the pharmaceutical industry covering Phase I to IV studies as well as preclinical and drug manufacturing work. He has contributed to

several scientific publications and conference proceedings as well as poster presentations and continues to work on independent research in various areas of interest.

### Secretary

**Coleen Hall** is a Statistician in the Clinical Statistics department of Abbott Laboratories. She received an M.S. in Biostatistics from the University of Illinois at Chicago. Prior to joining Abbott, Coleen held positions at the Hines VA Cooperative Studies Program Coordinating Center and the University of Illinois Health Research Policy Center. She has served as Secretary of the NICASA for the past two years.

### Treasurer

**Jimmy Sun** received his B.S. degree in Instrumentation Design Engineering from Shanghai University of China in 1984; and received an M.S. degree in Applied Statistics from the Graduate School of Louisiana State University in 1994 with minors in Chemistry and Quality Control. He was a biomedical instrumentation design engineer at Shanghai Medical Equipment Research Institute for five years from 1984 to 1989. After graduate school he worked as a Quality Engineer/New Product Development Manager at Yaskawa Electric of America. In 1996 he formed his own consulting firm, and also worked as a statistical consultant at Abbott Labs. He became an Abbott Employee in 2002.

Jimmy has been involved in the NIC/ASA chapter activities since year 2000. He created a database for chapter meeting registration and membership purposes and volunteers at the registration table for all the chapter meetings. He was elected Treasurer for year 2004.

~ Bala Hosmane

## Getting Involved

Two individuals will be needed to help with registration at the Fall Meeting. Volunteers will be expected to come about a half-hour before the start of the registration period and will work at the

registration desk as directed by the Chapter Treasurer, Jimmy Sun. This is a great way to connect faces with names and to offer a quick “hello” to friends and colleagues who are attending.

An additional Fall Meeting volunteer is needed to meet and greet the speakers. This volunteer will be asked to come at the start of the registration period so they can meet the Arrangements Chair, Chris Sullivan, and then watch for and welcome each of the speakers as they arrive. This person will make sure each speaker is shown the meeting room and AV set-up and is welcomed at a lunch table. This is a great way to help make sure our speakers know their time and effort is appreciated.

Please contact the Chapter Secretary, Coleen Hall, at [coleen.hall@abbott.com](mailto:coleen.hall@abbott.com) if you are willing to help with the Fall Meeting or if you are interested in getting more involved in the Chapter’s activities.

~ Coleen Hall

## Chapter Website

Don’t forget to visit our Chapter web page at <http://www.amstat.org/chapters/NortheasternIllinois>. The website has lots of information about our Chapter, including events, program information, and contact information for Chapter officers and committee members. You can also peruse PDF versions of current and past Chapter newsletters. Finally, if the speaker provides them, slides/notes from previous presentations are available to view or download.

~Paul Cernohous

## Employment Opportunities

SCIREX is a global clinical research company providing integrated drug development services. Due to our growth, we have two openings, one for a Senior Statistician and one for a Statistician in our Chicago (Bloomington, IL) office.

Primary responsibilities include, SAS programming to generate derived data sets, tables, listings, and graphs of clinical trial data; QC/QA of SAS programs; writing statistical analysis

plans and statistical methods sections of protocols; carrying out sample size and power calculations; serving as technical lead on projects; having advanced knowledge in SAS programming and statistical methodology.

Qualified candidates MUST have an advanced degree (MS or PhD) in statistics or closely related field with a minimum of three to five years of statistics and SAS programming experience in the pharmaceutical industry.

SCIREX offers a dynamic work environment and competitive compensation and benefits.

For consideration, apply directly to this position by visiting our website: [www.scirex.com](http://www.scirex.com) or email your resume to [jobs@scirex.com](mailto:jobs@scirex.com).

The Rush Institute for Healthy Aging, in conjunction with the Rush Alzheimer's Disease Center, Rush University Medical Center, is anticipating having an opening for a master's-level Programmer Analyst, pending final funding approval. The group is a multi-disciplinary research group focused on investigating chronic conditions of aging, such as changes in physical functioning and cognitive functioning, and diseases such as Alzheimer's disease. To support this research, the statistics group includes a staff of programmer analysts who have primary responsibility for reviewing data and running statistical analyses, under the supervision of a Senior Systems Programmer Analyst in conjunction with a faculty statistician. Most of the programming is done in SAS, with some S-Plus as well, in both unix and PC environments. The statistical methods used range from linear and logistic regression to more complex multivariate models for longitudinal data. The successful candidate will have a combination of solid statistical knowledge, good programming skills, and excellent communication skills (oral and written), and will be a good team player. Master's degree in statistics or biostatistics is preferred. Interested candidates should send a cover letter and resume via e-mail to Dr. Julia Bienias, [jbienias@rush.edu](mailto:jbienias@rush.edu). Rush is an equal opportunity employer.

## Calendar

The following are some upcoming meetings/conferences that may be of interest:

- 2005 International Conference on Health Policy Research (October 28-30, 2005; Boston, Massachusetts)
- 12<sup>th</sup> Annual Biopharmaceutical Applied Statistics Symposium (November 7-11, 2005; Savannah, Georgia)
- 61<sup>st</sup> Annual Deming Conference on Applied Statistics (December 5-9, 2005; Atlantic City, New Jersey)

For additional meetings or information, visit *Calendar of Events* on the ASA website ([www.amstat.org](http://www.amstat.org)).

~Richard Rode

## Officers and Committee Chairs

### PRESIDENT

Renee Alpern  
(708) 202-4897  
[Renee.Alpern@med.va.gov](mailto:Renee.Alpern@med.va.gov)

### PRESIDENT-ELECT AND PROGRAM CHAIR

Jeffrey Isaacson  
(847) 937-8302  
[Jeffrey.Isaacson@abbott.com](mailto:Jeffrey.Isaacson@abbott.com)

### SECRETARY

Coleen Hall  
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### TREASURER

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[Jimmy.Sun@abbott.com](mailto:Jimmy.Sun@abbott.com)

### PAST-PRESIDENT

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### CHAPTER REPRESENTATIVE

Bala Hosmane  
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### ARRANGEMENTS

Chris Sullivan  
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[csullivan@childrensmemorial.org](mailto:csullivan@childrensmemorial.org)

Peter Yu  
(847) 582-2359  
[peter.yu@tap.com](mailto:peter.yu@tap.com)

### MEMBERSHIP CHAIR

OPEN

### AWARDS AND RECOGNITION

Prof. A. S. Hedayat  
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### COMMUNITY ACTIVITIES

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### NEWSLETTER EDITOR

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### WEBMASTER

OPEN

### 2005 SUMMER WORKSHOP PUBLICITY

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**Statfax** is published three times a year (Spring, Summer, and Fall), by the Northeastern Illinois Chapter of the American Statistical Association.

**Statfax** welcomes letters and material for articles from its readers. Address correspondence to: The Editor, Statfax, c/o Anita Ross, Ross Consulting, 4554 Main St., Skokie, IL, 60076.

The Chapter's purpose, as stated in its Constitution, is "to foster statistics and its applications and promote the interests of the statistical profession...". Accordingly,

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diverse views are presented. They do not necessarily reflect the opinions of the officers or the policies of the Chapter.