

18th Annual Summer Workshop

Statistical Methods for the Analysis of Ordered Categorical Data

Ordered categorical response variables occur frequently in many types of research. The purpose of this course is to introduce, discuss, and provide examples of several approaches for analyzing data in which the response variable is categorical with more than two ordered categories. One approach is based on the use of randomization model test statistics for two-way and stratified two-way contingency tables. In addition, regression methods for modeling a categorical response as a function of one or more categorical and/or continuous covariates are useful in many areas of application. Thus, the course will cover extensions of the binary logistic regression model to ordered categorical outcome variables, as well as weighted least squares methods for the analysis of ordered categorical responses. Multiple logit, cumulative logit, mean score, and proportional odds regression models will be discussed. The course will also introduce and discuss extensions of these types of models to the repeated measurements setting (multiple measurements per subject). Examples using SAS software will be presented. The course is directed to statisticians who wish to learn (and/or to review) several approaches to the analysis of ordered categorical outcome variables; participants should have some knowledge of basic methods for the analysis of categorical data.

Chuck Davis Elan Pharmaceuticals

Chuck Davis is Senior Director of Biostatistics at Elan Pharmaceuticals, San Diego, California. He previously was assistant professor (1987-1991), associate professor (1991-1996), and professor (1996-2001) in the Department of Biostatistics at the University of Iowa. He is the author of *Statistical Methods for the Analysis of Repeated Measurements* (Springer, 2002), the co-author of *Categorical Data Analysis using the SAS System* (SAS Institute, 1995 [2nd edition: 2000]), and has published more than 75 peer-reviewed papers in statistical and medical journals. His research and teaching interests include categorical data analysis, methods for the analysis of repeated measurements, and clinical trials. Dr. Davis has consulted with numerous companies and has taught short courses on categorical data analysis, methods for the analysis of repeated measurements, and clinical trials methodology for industrial, government, and academic organizations. He received an "Excellence in Continuing Education" award from the American Statistical Association (ASA) in 2001 and has served as associate editor of the journals *Controlled Clinical Trials* and *The American Statistician*, as chair of the Biometrics Section of the ASA, and on the executive committee of the Biopharmaceutical Section of the ASA. He received his Ph.D. in Biostatistics from the University of Michigan in 1987.

~Richard Rode

Summer Workshop

The summer workshop will be held on June 27, 2002, from 8:30am to 4:30pm, at the Adam's Mark Hotel, 2875 N. Milwaukee Ave., Northbrook, IL 60062. (Telephone: 847-298-2525.) The luncheon menu will be finalized after the newsletter is published. If you have special needs, please contact Renee Alpern at (708-202-4897) or email: alpern@research.hines.med.va.gov.

~Renee Alpern

Program Committee

I would like to take this opportunity to thank everyone that participated in the Spring Chapter Meeting. I would especially like to thank the three speakers, Joan Chmiel, Bala Hosmane, and George Tiao, for helping to make the Spring Chapter Meeting a success. The year is off to a great start!

Next up is the Summer Workshop, which is scheduled for June 27th. Chuck Davis from Elan Pharmaceuticals has graciously agreed to present a workshop on ordered categorical data. My thanks to Phil Pichotta for suggesting the topic for the Summer Workshop and for convincing Chuck to participate.

The speaker line-up for the Fall Chapter Meeting is complete, with Scott Berry, Paul Levy, and Devan Mehrotra scheduled to participate. The Fall Chapter Meeting has been scheduled for October 3, 2002. Additional details will be provided later this summer.

~Richard Rode

Community Activities

During the Spring our Chapter annually sends representatives to judge at the IJAS Region 6 Science fair held at Niles North in Skokie. This year on March 23, Donna Kowalski, Bob Dillard and I viewed hundreds of projects from both junior high and senior high students and awarded

three bonds for Best Use of Statistics in a Science Fair Project. In order to be a recipient of this award, the student must use and demonstrate a knowledge of some form of hypothesis testing as part of their analysis and project.

Our chapter congratulates and proudly salutes this year's winners: Michael Levine from Daniel Wright Junior High School (category: Chemistry and project: *How does temperature affect crystal growth?*) The other winners were Charishma Chotalia from Lincoln Hall Middle School (category: Behavioral Science and project: *Stereotype Threat*), and Frank Sun from Woodland Middle School (category: Behavioral Science and project: *The Stroop Effect: Do Age and Gender Matter?*).

We had a lot of fun talking with many of the young student scientists, but since judging only lasts from 9a.m. to noon, it sure would be nice if we could have more members come and help us out in this yearly event. If you ask any of this year's team, I assure you that they will agree it is a rewarding experience. Plan to join us next year if you have the opportunity.

On Saturday, May 4th, 2002, Dorothy Dunlop and I will represent the Chapter downstate in Champaign at the IJAS State Science Fair. This competition includes the best projects of each region. For the past two years, we have given awards for Best Use of Statistics in a Science Fair Project in the Behavioral and Health Science Categories. If you are in the vicinity of Champaign during the second weekend in May next year, we would love to have you join us. Next year's fair is on Saturday, May 10th, 2003.

Our Chapter is proud to recognize these young statisticians. By special recognition, we hope that these students will recognize the broad uses and applications of statistics in whatever career they may pursue.

~Carole Bernett

Treasurer's Report

BALANCE 1/1/2002	\$3,491.74
INCOME	
Chapter Meetings and Memberships	
2002 Spring Meeting	\$2,676.00
Investments	
Bank Interest (Through 7/31/01)	\$19.15
Total Income	\$2,695.15
EXPENSES¹	
Operating Expenses	
Bank Charges	(\$5.00)
Total Expenses	(\$5.00)
BALANCE 3/312002	\$6,181.89

¹ Paid expenses that have not yet cleared.	
Spring 2002 Meeting	\$2,140.87
Door Prize (Text Books)	\$ 101.33
Total	\$2,242.20

2002 Paid Memberships	73
Non-Students	64
Students	9

~Harold Frush

Chapter Webpage

Our Chapter web page has a new home and a new URL. It can be found at <http://www.amstat.org/chapters/NortheasternIllinois/nic.htm>. The Chapter webpage has lots of information about our Chapter, including events, program information, a membership directory, and contact information for Chapter officers and committee members. You can also peruse PDF versions of current and past Chapter newsletters.

Many thanks to Paul Cernohous, and to our previous Webmasters, Phil Pichotta and Mike Carniello, for maintaining and updating our

Chapter web page! Thanks also to Mike Carniello for hosting our web site for the past several years.

Awards and Recognition

Every three years, each ASA Chapter is invited to nominate one of its members for the Chapter Service Award. We are pleased to announce that we have nominated Dorothy Dunlop for this honor. Dorothy has served for many years in a leadership role in the Chapter and is also very active in Community Outreach activities. Congratulations to Dorothy on this much deserved award and many thanks for her service to the Chapter.

Calendar

Following are some upcoming events that may be of interest to you. Check the ASA web site for further details:

Twenty-fifth Annual Midwest Biopharmaceutical Statistics Workshop (May 20-22, 2002; Muncie, Indiana)

Hawaii International Conference on Statistics and Related Fields (June 5-9, 2002; Honolulu, Hawaii)

Summer Program in Applied Statistical Methods (June 10-28; Columbus, Ohio)

Fourth Biennial International Conference on Statistics, Probability and Related Areas (June 14-16, 2002; DeKalb, Illinois)

Third International Conference on Multiple Comparisons Procedures (August 4-7, 2002; Bethesda, Maryland)

2002 Joint Statistical Meetings (August 11-15, 2002; New York, New York)

NICASA Fall Meeting (October 3, 2002; location to be announced)

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