



Cornell University  
**Office of Statistical Consulting**  
Colleges of Human Ecology and Agriculture and Life Sciences  
Division of Nutritional Sciences

## Stat Happenings #2: Statistics News You Can Use From the Office of Statistical Consulting Fall 2004

### 1. New SPSS version 12

#### a. New SPSS Complex Surveys Module

#### b. Improvements to SPSS Mixed Models Module

### 2. New Minitab version 14 available at Cornell

### 3. Inaccuracies in Excel's statistical functions

### 4. Group discount for AMOS 5.0 for structural equation modeling

### 5. New version of Oriana available for circular statistics

### 6. Statistical short courses and workshops

### 1. New SPSS version 12

SPSS released version 12, which is now available for researchers at Cornell. A useful review of this version can be found in the November 2003 issue of the American Statistician (Vol.5, No. 4, pg 310-315). We would like to offer you the following inputs:

1. SPSS has also released a new module with version 12 for analyzing complex surveys, those with clustering or stratification. This module does descriptive statistics such as means and correlations, but is unable to do any analysis beyond that, such as regression models. The module is not available with the Cornell site license at this time. We remind researchers that using the weight command in SPSS is not sufficient for taking a complex survey design into account, and the result will be standard errors and p-values that are inaccurately low. For more information on the issue, see Brogan's article "Pitfalls of Using Standard Statistical Software Packages for Sample Survey Data" at [http://www.fas.harvard.edu/~stats/survey-soft/donna\\_brogan.html](http://www.fas.harvard.edu/~stats/survey-soft/donna_brogan.html). The newly updated StatNews #35 has information on the available software choices at <http://www.human.cornell.edu/Admin/StatCons/statnews/stnews35.htm>.

2. We previously announced that the SPSS Mixed Models procedures had problems with random coefficient models. This has been fixed in version 12.0, and we can now recommend its use. The menus are still quite confusing, and special care should be taken to make sure that the model is specified correctly. The syntax, however, is quite straightforward and intuitive.

### 2. New Minitab version 14 available at Cornell

Minitab released version 14, which is now available for Cornell researchers. Its main contribution is a much improved graphing capability. More information can be found on the Minitab webpage at

<http://www.minitab.com/products/minitab/14/features.aspx>.

### 3. Inaccuracies in Excel's statistical functions

A recent article by McCullogh and Wilson in "Computational Statistics and Data Analysis" reports that many statistical procedures in Excel 2000 and 2002 are inaccurate. Furthermore, inaccuracies which had previously been found in Excel 97 were not corrected in the more recent versions, and some were even made worse by becoming less detectable, though equally inaccurate. Examples of statistical procedures that were inaccurate include the normal random number generator, descriptive statistics such as standard deviation and correlation, one-way ANOVAs, and linear and nonlinear regressions. Please see [this website](#) for more information.

#### **4. Group discount for AMOS 5.0 for structural equation modeling**

Smallwaters Inc. is offering a 25% discount on AMOS 5.0, software for Structural Equation Modeling, if three or more copies are purchased together. If you are considering purchasing or upgrading AMOS, please notify us so that we can coordinate purchases to get you the discount. Regular price is \$595.00.

#### **5. New version of Oriana available for circular statistics**

A beta-testing program for the new version of Oriana, software for analyzing circular statistics, is now available. Please see <http://www.kovcomp.com/oriana/> for more information about Oriana or <http://www.human.cornell.edu/Admin/StatCons/statnews/stnews54.htm> for more information about Circular Statistics.

#### **6. Statistical short courses and workshops**

- The University of Florida's Department of Statistics is offering nine one- and two-day short courses March 8-11. Topics include "Analysis of Repeated Categorical Measurement Data," "Longitudinal Data Analysis," "Mixed Model and Hierarchical Data Analysis," and "Genetic Data Analysis." See <http://www.stat.ufl.edu/info/shortcourses/> for more information.
- The University of Maryland's Department of Measurement, Statistics and Evaluation is offering 2-day short courses on "Structural Equation Modeling" and "Multilevel Models" in January. Call (301)405-3629 or email [rm256@umail.umd.edu](mailto:rm256@umail.umd.edu) for more information.
- The Center for Statistical Consulting and Research at the University of Michigan is offering workshops on various statistical and statistical computing topics throughout the academic year. See <http://www.umich.edu/~cscar/workshops/index.html> for more information.

(This newsletter was distributed to faculty and graduate students in the Division of Nutritional Sciences and the College of Human Ecology, and faculty in the College of Agriculture and Life Sciences, by the Office of Statistical Consulting. Please forward it to any interested colleagues and research staff. Anyone not receiving this newsletter who would like to be added to the mailing list for future newsletters should contact [Karen Grace-Martin](#). Information about the Office of Statistical Consulting can be obtained at World Wide Web address <http://www.human.cornell.edu/admin/statcons/>.)