President’s Message

In the last issue of the Score, I expressed concern about the continued viability of programs in quantitative psychology and the need for educational opportunities and training for those interested in careers in quantitative psychology, as have many others in the last several years. A related issue is a concern about membership in Division 5. Membership in Division 5 is important for several reasons. First, we hope that the division, its listserv, the newsletter, our APA program and other activities serve to bring together individuals with similar interests enhancing their research and teaching. Certainly the primary benefit of membership should be the opportunity to interact with others whose professional activities and/or interests include assessment, evaluation, measurement and statistics.

In addition, membership in APA divisions indirectly determines the number of members we have on APA’s Council of Representatives. A larger membership gives us a stronger voice in the governance structure of APA and the opportunity to advocate for issues and concerns of interest to our membership. Just a few years back, we were hoping to gain membership (and allocation votes) that would provide us with three Council reps; we are now concerned about retaining the two representatives we have. We are fortunate now to be served by two able representatives: Gwyneth Boodoo and Kurt Geisinger. These two individuals were successful in gaining cross-division support to increase the funding for Interdivisional Grants from APA from $12,500 to $50,000 over the next few years. This recommendation with the support of the Committee on Division/ APA Relations will be an item on the APA Board of Directors agenda in December. Another recent effort spearheaded by our Council representatives was the Task Force to Increase the Quantitative Pipeline chaired by Leona Aiken. Active and able representation in APA Council can be an effective way to further our objectives and interests.

A third benefit of Division 5 membership is the reduced subscription to either Psychological Methods or Psychological Assessment. Both of these journals are excellent, highly respected and cited outlets for work in our field. Student members pay only $9.00 for membership and receive the journal of their choice for $21.00. APA members pay $43 to join the division which includes one of these two journals with no additional charge; normally a subscription to Psychological Assessment for non-APA members is $126. Similarly, non-APA members pay $84 for a subscription to Psychological Methods. Members also receive the Score,
The Score is the official newsletter of APA Division 5—Evaluation, Measurement, and Statistics—and is published quarterly in January, April, July and October. In keeping with this mission, the Score publishes the division’s business meeting minutes, committee reports, and announcements.

In addition, where appropriate and space permits, short articles (800–1000 words) on technical issues and professional activities of Division 5 members, or on topics of current interest may be accepted. Brief announcements and calls for presentations related to conferences or meetings of particular interest to Division 5 members may also qualify. Submissions should be sent to Score Editor, Chris Gruber: cgruber@wpspublish.com.

Mailing addresses come directly from APA. Please contact APA directly for issues related to your contact information. Non-profit bulk mailing is used except for the July issue which contains time sensitive material related to the APA convention in August and is mailed 1st Class. Consequently, copy deadlines are 45 days prior to publication: February 15 for the April issue, May 15 for July, August 15 for October and November 15 for January.

Guidelines for advertising appear elsewhere in this issue. Paid advertisements are solicited from a variety of sources and are not officially endorsed by Division 5.

Guidelines for the “What’s new?” column are provided with the column.

Urgent announcements should be submitted to the Division 5 Listservs, described in the box below.

Listservs
Keep up with the absolute latest Division 5 news through its two e-mail lists.

DIV5 serves as a vehicle for discussion among members on topics related to evaluation, measurement statistics, and assessment.

DIV5ANN is used exclusively for announcements from Division leadership, such as convention or workshop information or policy changes. This is a “one-way” list that does not support list-wide replies (that is, it is not structured to support discussion).

To subscribe to either or both lists, send the following message to

LISTSERV@LISTS.APA.ORG:

SUBSCRIBE DIV5ANN John Doe
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If you have any questions, contact Mark Daniel at Mark.Daniel@pearson.com.
Award for Distinguished Scientific Applications of Psychology to Jöreskog and Bentler

The Award for Distinguished Scientific Applications of Psychology is presented to honor individuals who have made distinguished theoretical or empirical advances leading to the understanding or amelioration of important practical problems. For 2007, APA’s Committee on Scientific Awards chose Karl G. Jöreskog and Division 5 Past President Peter M. Bentler for their development of models, statistical procedures, and a computer algorithm (LISREL by Karl G. Jöreskog; EQS by Peter M. Bentler) for Structural Equation Modeling (SEM) that changed the way in which inferences are made from observational data by permitting hypotheses derived from theory to be tested. With thanks to APA and the American Psychologist, Division 5 Officers and the Score Editors invite you to meet the awardees through their brief bios.

Karl G. Jöreskog’s Biography

Karl G. Jöreskog is professor emeritus at Uppsala University in Uppsal, Sweden. He was born in Åmål, Sweden, in 1935 and did his undergraduate studies at Uppsala University from 1955 to 1957, with a major in mathematics and physics. He received a doctoral degree in statistics at Uppsala University in 1963 with a dissertation entitled “Statistical Estimation in Factor Analysis,” a topic suggested to him by Herman Wold. He was a research statistician at Educational Testing Service (Princeton, NJ) and a visiting professor at Princeton University from 1964 to 1971. During these years, he published several articles in Psychometrika on the method of maximum likelihood applied to exploratory and confirmatory factor analysis, covariance structure analysis, and multiple group factor analysis. These articles laid the foundation for the LISREL model, which was presented for the first time at the Structural Equation Models in the Social Sciences conference held in Madison, Wisconsin, in November 1970.

In 1971, Jöreskog returned to Sweden to become a professor of statistics at Uppsala University. In 1984, he was appointed a research professor of multivariate statistical analysis, a position he held until his retirement in 2000.

Jöreskog has received three honorary doctoral degrees: from the Faculty of Economics and Statistics at the University of Padua, Padua, Italy, in 1993; from the Norwegian School of Economics, Bergen, Norway, in 1996; and from the Faculty of Psychology at the Friedrich-Schiller-Universitât, Jena, Germany, in 2004. He became an honorary professor of finance and economics at Tianjin University, Tianjin, China, in 2006.

Jöreskog is a member of the Swedish Royal Academy of Sciences, a fellow of the American Statistical Association, and a honorary fellow of the Royal Statistical Society. He served as president of the Psychometric Society from 1977 to 1978 and organized the first European Psychometric Society Meeting in Uppsala, Sweden, in 1978.

Jöreskog received the Amberg Prize from the Swedish Royal Academy of Sciences in 1971; the Ubbo Emnus Medal from the University of Groningen, Groningen, the Netherlands, in 1983; the Educational Testing Service Award for Distinguished Service to Measurement in 1987; the Sells Award from the Society of Multivariate Experimental Psychology in 2000; and the Olaus Rudbeck Medal from Uppsala University in 2005.

Jöreskog has authored several books and numerous journal articles on factor analysis and its extensions and on structural equation modeling. Together with Dag Sörbom, he developed the LISREL computer program.

Peter M. Bentler’s Biography

Born in Berlin in 1938, Peter M. Blumenfeld lived in Germany during World War II with his brother Claus, mother Ilse, and father Werner, who was twice imprisoned by the Nazis. In 1948, they started a new life in Los Angeles as the Bentlers. Bentler was educated in public schools, including Santa Monica College and the University of California, Los Angeles (UCLA), where he majored in anthropology/sociology and lettered in swimming. After graduation in 1958, he worked as research assistant and then administrator of a small-groups laboratory at System Development Corporation, an offshoot of RAND. This experience encouraged him to apply to the University of Pittsburgh’s program in social psychology. Supported as a research assistant in administrative science (with professor J. Thompson), he had his first exposure to quantitative methods (R. Glaser, G. Lazovik) and did his master’s thesis (T. Wilson, T. Brock) on cognitive dissonance. He became interested in clinical psychology and moved to Stanford University, where he studied depth (K. Colby), behavioral psychology (A. Bandura, L. Krasner), hypnosis (J. Hilgard), and especially personality and individual differences and their assessment (J. Wiggins; also L. Goldberg at Oregon Research Institute). His dissertation was on response variability (1964, with D. Jackson). His graduate publications included an early application of Wolpe’s reciprocal inhibition therapy (1962) and five articles on hypnosis. Oddly enough, in view of his over 440 publications, his master’s and doctoral theses were never published. After a postdoctoral year in personality assessment at the Educational Testing Service (with S. Messick), Bentler became an assistant professor of psychology at UCLA.

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Award for Distinguished Scientific Applications of Psychology

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Moving through the ranks, he served as chair (1999–2002) and currently is distinguished professor of psychology and statistics.

Bentler maintained an interest in personality and social psychology throughout his career. In his first postdoctorate decade, he was also on the clinical faculty and worked in such areas as sexual behavior assessment, gender constancy and identity, transvestitism, Piaget’s conservation, semantic space, and response styles; somewhat later, his focus was on attitudes, love, orgasm, and marital success and failure. In the mid-1970s, he developed an interest in the etiologies, correlates, and consequences of drug use. Integrating his interests in personality and social psychology with research on substance abuse, he designed and implemented a longitudinal study of adolescent development that, with the help of productive collaborators across the years (G. Huba, M. Newcomb, J. Stein, T. Locke), continues today as part of his Center for Collaborative Research on Drug Abuse (http://www.ccrrda.psych.ucla.edu), funded by the National Institute on Drug Abuse. As an Institute for Scientific Information highly cited researcher, 40% of his top-cited articles are on drug abuse.

With little formal training in mathematics, Bentler came to quantitative methods through psychology. As he studied psychology in graduate school, he started believing that sophisticated methodologies and quantitative techniques would become critical to its scientific development. For the aspiring psychologist in the early 1960s, Stanford offered many potential directions in career development, as it was becoming a leader in several fields. The growth of mathematical psychology in particular (R. Atkinson, W. Estes, P. Suppes) convinced Bentler that there would be a growing emphasis on quantitative methods in all fields of psychology, requiring him to gain technical proficiency. Encouraged through friendly critiques from correspondents (e.g., H. Kaiser), he augmented his study of statistics and test theory (Q. McNemar) with self-study. As a result, he was able to develop and publish some new results in factor analysis and reliability theory. Although he has worked in several quantitative areas across the years, such as matrix calculus and multidimensional scaling, his most widely recognized quantitative contributions are in the field of latent variable structural equation modeling (SEM).

K. Jöreskog’s research of the late 1960s and 1970s was inspirational to Bentler, as his matrix and vector system creatively combined the psychometric factor analytic model with the econometric simultaneous equation system to provide a comprehensive way to specify hypotheses on nonexperimental data. Jöreskog’s pioneering LISREL program made it possible for the first time to evaluate such hypotheses in practice. Yet Bentler found that students with average mathematical and statistical backgrounds and those who had trouble with the Greek alphabet had great difficulty learning this methodology; if they were not careful in keypunching their IBM cards, they also had trouble in implementing it. And if their data did not represent samples from multivariate normal populations, the resulting statistics and hence scientific conclusions could be questionable. These issues also directly impacted Bentler’s drug abuse research, where skewed and kurtotic distributions were typical. It may be said that his psychometric and statistical work of the past 30 years has been, in good part, directed at understanding and overcoming such limitations.

Although D. Kenny, with his book Correlation and Causality, and others initially brought SEM to psychology, Bentler’s work was seminal. First, his development of the Bentler–Weeks model provided a much simpler way of explaining and motivating models and permitted logical model specifications, such as the effects of observed variables on others, that were difficult to implement with LISREL. Second, the new Bentler–Bonett fit indices could supplement test statistics to more appropriately evaluate models when sample size is large and power is excessive. Third, his new EQS program allowed researchers to do SEM without needing to know matrix algebra or Greek characters and, later, first permitted the graphical specification of models. Fourth, his early acceptance and extension of the brilliant ideas of M. Browne on distribution-free theory served to assure that SEM would be available for real data that often did not fit the previous restrictive paradigm. Fifth, he and his research group provided many examples of SEM applied to real psychological issues, including drug abuse. And finally, his expository articles brought the ideas of causal modeling to a large audience.

Since then, Bentler has made contributions to virtually all aspects of SEM, especially the associated statistical theory and its performance in practice. His personal contributions include a fundamental definition of latent variable models, models for higher order moments, the comparative fit index, a mixture chi-square test, a noniterative estimator, and new methods in reliability theory. However, most of his publications involve a remarkable set of students and colleagues from around the world. In addition to D. Bonett and D. Weeks, these include M. Berkane, elliptical theory generalization of multivariate normality; W. Chan, models for additive and ordinal ipsative data; C.-P. Chou, model modification and parameter change and Akaike’s information criterion; T. Dijkstra, general distribution theory for arbitrary structural models; K. Hayashi, models and methods in factor analysis; L. Hu, simulations on the actual performance of statistics and fit indices; M. Jamshidian, missing data methodology and constrained estimation; Y. Kano, heterogeneous kurtosis theory and pseudo–maximum likelihood theory; K. Kim, homogeneity of means and covariances in missing data; S.-Y. Lee, multimode models, constraint theory, and polychoric–polyserial methods; J. Liang, multilevel models and methods; A. Mooijaart, latent quadratics and interactions and parsimony and precision; W.-Y. Poon, polynotous and interval data models; A. Satorra, scaled and adjusted chi-square statistics and asymptotic robustness; J. Tanaka, limitations of the expectation-maximization algorithm; M.-L. Tang, methods for truncated data and missing data; L.-J. Weng, SEM with dependent observations and multiple population theory; Y.-F. Yung, bootstrapping methodology and effects of added information.

In the last decade, Bentler worked extensively with K.-H. Yuan, whose many original ideas on finite sample distribution-free and residual-based tests, general multivariate distributions, case-robust SEM, F tests, robust missing data methods, distribution-free multilevel tests, mean comparisons, and so on have been unparalleled in the recent history of statistical psychometrics. Bentler is also grateful to have worked and published with students E. Freeman, M. Gold, L. Harlow, G. Hellermann, L. Li, V. Savalei, J. Ullman, and J. Xie; colleagues L. Aiken, P. Dudgeon, K.-T. Fang,
Comments on the Joint Standards Revision: Division 5 Responds!

The Joint Committee of APA/AERA/NCME, responsible for revising the Standards for Educational and Psychological Tests, recently called for opening comments from a variety of groups and organizations. Members of the Division 5 Executive Committee responded with a 23-page document. Following below are some excerpts. Watch future issues of the Score for developments. The last revision (1999) was three years in the making and the discussion was occasionally quite animated. Note: The Division 5 leadership recognizes that individual members of Division 5 may have additional concerns and hope that these will be voiced in Score and presented throughout the Standards review process.

General Comments

The ‘Joint Standards’ were published in 1999. They embody the collective wisdom of the field circa 1998—roughly a decade or so ago. Clearly, and for good reason, they remain widely recognized as reflecting the professional consensus with respect to the development and evaluation of psychological and educational tests. Much has changed since in the field of testing and assessment. Indeed, we have witnessed exponential growth in the use of tests at all levels of our educational system. Much of this growth has been fueled by the No Child Left Behind Act of 2001 (Public Law 107-110), commonly known as NCLB which was signed into law in early January 2002 and which ushered in the modern era of test based accountability in education. A second area which the Standards must address is the use of web-based testing. Issues of security and equivalence to tests measured in other modes are two of many issues that should be addressed with respect to web-based testing.

Comments related to Policy Decisions in Education

The use of tests in evaluation and public policy within education has seemingly increased in frequency and importance at a rate that far exceeds other settings (e.g., health care, employment). The next revision of the Standards must address the increased use of educational assessments as justification for policy decisions or as the sole evidence for changes on some external constructs (e.g., school improvement, teacher quality, student growth in achievement). The following points should be made at various places in the commentary or in revised or new standards.

1. When test results are used to evaluate an intervention or program in naturalistic settings over some period of time (classrooms, schools, organizations) a number of unrelated factors may be responsible for changes or differences in the outcome. For example, when a new reading program is introduced in a school and changes in reading level are evaluated from the beginning to the end of the school year, additional factors that could be partially responsible for changes in reading test scores that are unrelated to the intervention (e.g., smaller class sizes, differences between groups, parental involvement). Many such external factors can not be controlled in naturalistic settings but they should be minimized to the extent possible in the design of the study through selection of comparable groups and settings, and the potential influence of such external factors should be acknowledged and explained.

2. In program evaluation studies, issues of sample attrition, the influence of external factors or moderators, and differences in the implementation of any interventions should be added to the list of concerns about the interpretation of results.

3. When aggregate scores from different tests that are administered under different conditions to different groups of students are used for policy purposes to make conclusions about common outcomes. For example, the percent of students meeting different levels of proficiency on state writing tests may be used to make cross state comparisons. Such comparisons are highly questionable and the limitations and assumptions in such policy analyses should be acknowledged and explained.

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Comments on Joint Standards Revision

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4. Content alignment studies should not be undertaken on tests that do not have a significant overlap in content coverage, cognitive complexity, and balance of content, or are used with different samples of test takers (e.g., 4th graders vs. 7th graders).

5. Attempts to infer scores on one test from scores on a different test are subject to several types of error and should not be undertaken unless there is both a substantive relationship between the constructs and content of both tests, and a strong empirical relationship between individual scores across both tests. When requirements for equating or concordances are not met, linkages or predictions may be appropriate. Linkages among tests administered across different states on different groups of students may not provide accurate indicators of how students would perform across both tests.

6. Efforts to link tests from one state to another state or a national test to a state test when there are differences in content, construct, and samples must be justified. Rigorous statistical methods for projecting scores or exchanging scores at the individual and aggregate levels do not currently exist.

7. In content alignment efforts, attention must be devoted to the appropriate steps required, the training of raters, reporting inter-rater reliability of ratings, and other quality factors that can determine the quality of alignment studies.

8. Differences between correlations and causal inferences must be carefully noted when interpreting the results of studies. Correlations between two variables are not causal evidence. When findings from program evaluations rely primarily on correlations using test scores, the test user must acknowledge these limitations and explain that there is insufficient evidence to suggest a causal relationship exists. Other potential moderator factors that are likely to influence such relationships should be acknowledged.

9. Statistical models that use test scores to project growth, compare group differences, or measure change in outcomes (e.g., learning) should report sufficient information that would allow replication of results. For example, assumptions about the data, weights assigned to variables, and rules used to measure change should be reported.

Comments on Web-Based Testing

Many issues related to web-based testing were raised at various points in our commentary on individual chapters. The following are some of the major concerns.

1. Testing environments that are not monitored (e.g., on the Internet) should simulate monitored conditions to the extent that it is possible. When it is impossible to monitor such administrations, the effect on test score results should be examined and reported.

2. Standards should be added that address a variety of issues including administration of the test and control over the entire testing process including security and validation that the individual for whom the test was intended, actually was the same individual who completed the test.

3. Is there a need to renorm tests when they are administered in this new venue? If so, what are the relevant questions or parameters associated with such norming efforts?

Overall Concern Regarding the Format and Length of the Standards

A concern was expressed that the 1999 Standards may simply be too long. The lengthy background material that precedes the standards in each chapter resembles and is more fitting for a text book on testing. And, the Standards may be too detailed. The current Standards are 294 pages long, compared to 39 pages for the original 1954 Standards and 100 pages for the 1985 Standards. The introductory material and the standards require considerable knowledge of psychometrics in some instances. Chapter 2, Reliability and Error of Measurement, is one example, requiring knowledge of IRT and generalizability theory. Because of all of this, the current Standards are not accessible or useful for key players in the testing enterprise. In short, the new Standards ought to be shorter, less detailed, and simpler.

We recognized that the comments above as well as others we proposed are inconsistent with much of the content in the previous paragraph and that the applications and modes of test use are much more complex than they were 50 or 20 or 10 years ago. While we do not believe we can return to a 39-page or 100-page document, we think there should be an effort to abbreviate material throughout the document. One alternative may be to provide a shorter, more readable and accessible set of standards in written form and a longer electronic version with backup technical discussions.

Doctoral Fellowships

Doctoral Fellowships in Education at SMU in Dallas, TX. Fellowships leading to a PhD are available emphasizing the development of effective interventions and assessments, and training in rigorous quantitative research methods in special or inclusive education (gifted, ELL, special needs). The nationally recognized faculty provides opportunities for a limited number of fellowships that include tuition and stipends, depending on grant funding. Masters-level degree and professional experience required. Applications accepted February 15 to May 1. See www.smu.edu/education/ and select Admissions.

Dr. Gale Roid, Director PhD Program, Simmons School of Education and Human Development, PO Box 750381, Dallas, TX 75275-0381; E-mail: groid@smu.edu
Have you published a new psychological test or testing product; a book on advanced statistics, measurement, or evaluation; an interesting web site or other Internet group related to measurement, statistics, or evaluation; or a computer program useful to Division 5 membership? If so, we would like to include an announcement of about 100 words in this column. We would also appreciate any suggestions, or feedback, on how this section of the newsletter can better serve the Division 5 membership. Please take the opportunity to share information with colleagues through your contributions to this column.

Please send announcements and/or product literature to Associate Editor Antonio Terracciano: TerraccianoA@grc.nia.nih.gov

New Books

**Handbook of Research Methods in Personality Psychology**
Edited by Richard Robins, Chris Fraley, and Robert Krueger

Bringing together leading investigators, this comprehensive handbook is a one-stop reference for anyone planning or conducting research on personality. It provides up-to-date analyses of the rich array of methodological tools available today. In chapters filled with detailed, practical examples, readers are shown how to formulate a suitable research design, select and use high-quality measures, and manage the complexities of data analysis and interpretation. Coverage ranges from classic methods like self-report inventories and observational procedures to such recent innovations as neuroimaging and genetic analyses. See [http://www.guilford.com/pr/robins.htm](http://www.guilford.com/pr/robins.htm)

**Multilevel Analysis for Applied Research: It’s Just Regression!**
By Robert Bickel

This book provides an accessible introduction to multilevel modeling, focusing on examples rather than equations. Helping readers build on the statistical techniques they already know, Robert Bickel emphasizes the parallels with more familiar regression models, shows how to do multilevel modeling using SPSS, and demonstrates how to interpret the results. He discusses the strengths and limitations of multilevel analysis and explains specific circumstances in which it offers (or does not offer) methodological advantages over more traditional techniques. See [www.itsjustregression.net](http://www.itsjustregression.net)

The Hogan Guide
By Robert Hogan, Joyce Hogan, and Rodney Warrenfeltz

Now available from Hogan Assessment Systems a 334-page resource book for the interpretation and use of the Hogan inventories. The accumulated knowledge in the book spans four decades and includes countless assessments, discussions, and feedback sessions.

Chapter highlights include:
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- fundamentals of scale-by-scale interpretation and delivering feedback
- advanced look at configural, conflict, and competency interpretation
- building a development plan

The inventories discussed are Hogan Personality Inventory (HPI); Hogan Development Survey (HDS); and Motives, Values, Preferences Inventory (MVPI). To order visit [www.hoganassessments.com](http://www.hoganassessments.com).

New Measure

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President’s Message
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our quarterly newsletter and can participate in the Division’s Listserv, which provides an opportunity for substantive discussions and the dissemination of information about conferences, job openings, special projects, etc.

Our membership base, like that of some other divisions has been declining. It is sometimes difficult to get accurate APA data at any given time, but it appears that our dues paying members (Associates, Members, Fellows) have declined from 930 to 809 between 2005 and 2007, a 13% decline in a two-year period. We also have approximately 200 dues-exempt members, 100 affiliates and 115 student members.

So I am asking that you help us recruit new members to the division. We have four categories of membership: (1) Members including members or Fellows of APA; (2) Associate Members; (3) Affiliate Members—active professionals in fields related to evaluation, assessment, statistics, or measurement who are not members of APA; and (4) Student Affiliates who are graduate students in psychology or related fields who have an interest in any of our subdisciplines. Student affiliates are also not APA members. Student memberships are very important as we hope to recruit these students as Full members once they have received their degrees. There is an application form elsewhere in this issue and every issue of the Score; please encourage your non-member colleagues and graduate students to complete the form and make application.

I shared this message with Abigail Panter who is our Membership Chair this year before I sent it to Chris Gruber, the editor of the Score. Aside from verifying the accuracy of the points I made above (thank you!), she emphasized the following:

- You can be a member of our Division without being a member of APA (not just as a student member).
- A student membership to Division 5 as a gift is a great way to mark a transition in a student’s education and/or recognize an important professional occasion (e.g., completing comprehensive exams, defending a master’s or doctorate).
- Many colleagues with quantitative and assessment interests may not be aware of the range of backgrounds of our members and may enjoy learning about and interacting with this broad community of researchers.
- Seventy-seven percent of our members belong to more than one Division. Membership is a great way to connect with people with a broad range of substantive backgrounds and interests as well as an interest in assessment, measurement, statistics or evaluation.
- We could see immediate improvement in our membership if each member identified at least one student or colleague who might be a potential Division 5 member and provided them with the information necessary to become a member.

If there are any questions at all about membership or suggestions about how to increase membership, contact Abigail Panter at panter@unc.edu.

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The *Score* is the newsletter of the American Psychological Association’s Division 5—Evaluation, Measurement, and Statistics. Division 5 is concerned with promoting high standards in both research and practical application of psychological assessment, evaluation, measurement, and statistics. Approximately half of the Division 5 members are university faculty members in quantitative psychology, psychometrics, educational psychology, or industrial-organizational psychology and half are engaged in careers in industry, including the areas of individual and large-scale assessment. More than 1,000 Division 5 members receive the *Score* each quarter.

Advertisements in the *Score* may be in the form of display advertisements or job announcements. Both types of ads can include graphics and other design features and can be submitted as text or camera ready display art. Prices for advertisements and size requirements are provided in the accompanying table. Advertising rates have been raised beginning with the January 2008 issue, the first increase in well over 10 years. Submission deadlines are 45 days prior to publication: February 15 for the April issue, May 15 for July, August 15 for October and November 15 for January. To advertise in the *Score*, please contact Associate Editor Glenn Milewski at gmilewski@collegeboard.org

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*Are you interested in psychological assessment and evaluation?*

Psychologists, assessment specialists, researchers, and practitioners are encouraged to become members of the International Association of Applied Psychology (IAAP), and specifically the Division of Psychological Assessment and Evaluation (Division 2). The Division is committed to researching topics important to applied psychology around the world, including testing and statistical methods and practices. Division members receive the quarterly newsletter, the journal *Applied Psychology: An International Review*, and reduced registration fees for IAAP’s international conference held every four years (the next one is scheduled for Melbourne, Australia in 2010). Most importantly, Division members become connected to hundreds of scholars around the world who share similar goals and interests in applied psychology and test theory, test applications, and testing practices. An application for membership can be obtained at the IAAP website (www.IAAPSY.org). Individual membership dues are $60 (£40) and student dues are $10 (£7).
**2008 MEMBERSHIP APPLICATION for APA MEMBERS**

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**Name:**

**Mailing Address:**

(Important!) ____________________________________________________________________________ ____________________________________________________________________________ ____________________________________________________________________________

**Date:**

**Title:**

**Telephone** ( ) ______________ **E-Mail Address:**

**Highest Degree Received:** ____________________________________________________________________________ **Year:** ______________

**Degree Granting Institution:**

**Present School (if Student):**

*Note: Applications dated September 1 or later are applied to the following year, unless requested otherwise.*

**Type of Division 5 membership:**

- [ ] APA member/associate/fellow $43.00 $33.00 (includes one journal subscription)
- [ ] Student Affiliate $9.00 $0.00 (does not include journal subscription)

**APA Membership**

**Category:**

- [ ] Fellow
- [ ] Member
- [ ] Associate
- [ ] Student Affiliate

**Member number:**

**Choice of journal:** Indicate your choice below.

- [ ] Student Affiliates may purchase one or both journals at the student rate of $21.00 per journal.
- [ ] All other division members receive one of the two journals with their annual dues (check one).

- [ ] Psychological Assessment
- [ ] Psychological Methods

**Check if you wish to subscribe to the listserv(s):**

- [ ] discussion
- [ ] announcements

**Check the Section(s) to which you wish to belong. If both, circle the check mark for your primary Section.**

- [ ] Assessment
- [ ] Evaluation, Measurement, and Statistics

Please enclose a check for the first year’s annual dues (and journal subscription(s), if applicable) with this application, in U.S. dollars (do not send cash). In subsequent years, members who belong to APA will be billed annually by APA; Affiliates and Student Affiliates will be billed by Division 5.

**Amount enclosed:** $________ (Make check payable to “APA Division 5”)

APA member or Affiliate: $33.00 → Special discount price for APA Members joining Division 5! 

Student Affiliate: $21.00 per journal if choosing to subscribe.

Send this form and your check to: Division 5 Administrative Office
American Psychological Association
750 First Street, NE
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General Latent Variable Modeling

Mplus is a statistical modeling program that combines in a general framework continuous and categorical latent variables with observed dependent variables that can be continuous, censored, binary, ordered categorical (ordinal), unordered categorical (nominal), and counts.

Continuous latent variables are used to capture measurement errors, factors, frailties, liabilities, random effects, variance components, and missing data. Categorical latent variables are used to capture latent classes, clusters, finite mixtures, and missing data. This gives as special cases: regression analysis, path analysis, factor analysis, linear and non-linear structural equation models, growth models, multilevel models, latent class models, finite mixture models, discrete- and continuous-time survival models, missing data models, and combinations of these models.

Special Analysis Features in Mplus

- Simple model specifications
- Graphical displays of data and analysis results
- Extensive Monte Carlo simulation capabilities
- Complex survey data features including stratification, clustering, unequal probabilities of selection (sampling weights), and subpopulation analysis
- Missing data modeling for all outcome types

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