

# Robert I. Kabacoff, Ph.D.

Quantitative Analysis Center  
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## EDUCATION

Postdoctoral fellowship, Brown University Medical School	1984-1986
Ph.D. in Clinical Psychology, University of Missouri-St. Louis	1985
Pre-doctoral Internship, Medical University of South Carolina	1983
B.A. in Psychology, University of Connecticut	1978

## EXPERIENCE

### Professor of the Practice (Full)

*Quantitative Analysis Center, Wesleyan University, Middletown, Connecticut* 2016 to the present

Instruction of undergraduate courses in data science, including *Introduction to Data Journalism*, *Applied Data Analysis*, and *Machine Learning – Data Mining*. Provision of statistical and computing consultation to faculty university-wide. Individual student supervision.

Accomplishments include

- Creation of new courses in supervised machine learning, exploratory data analysis and pattern discovery, data journalism, and advanced R programming and software development.
- Provision of research and statistical consultation to students, post-doctoral fellows, and faculty.
- Supervision of student capstone projects.

### Vice President of Research

*Management Research Group, Portland, Maine* 1997 to 2016

Chief data scientist and statistical analyst, responsible for providing research and consultation to academic, government, corporate, and humanitarian institutions in North America, Western Europe, Africa, and Asia.

Accomplishments include

- Planning, execution, and analysis of more than 200 studies for academic, government, humanitarian, and corporate organizations.
- Completion of a ten-year comprehensive study of organizational behavior in 26 countries.
- Creation, execution, and analysis of the Wall Street Journal's first global surveys and rankings of MBA and Executive Education programs.
- Instruction of more than 20 live and virtual workshops on organizational research.

**Senior Data Scientist and Educator***Quick-R Consulting, Portland, Maine**2010-present*

Independent practice providing 1, 3, and 5 day courses in predictive analytics, data visualization, and statistical computing and R program development to government agencies, financial institutions, and national societies.

**Professor***Center for Psychological Studies, Nova Southeastern University, Davie Florida**1987 to 1997**Academic Appointments*

Full Professor	1996 to 1997
Associate Professor	1990 to 1996
Director of Research Support and Statistical Training	1990 to 1993
Assistant Professor	1987 to 1990

## Responsible for

- Teaching graduate courses in multivariate statistics, statistical computing, research methodology, psychometrics and measurement.
- Advising student dissertations and theses.
- Supervising a staff of advanced doctoral students providing quantitative and computing support to the university community.

## Accomplishments include

- **Professor of the Year** (1995). Awarded by the CPS student body.
- Creation of a state-of-the art research-computing laboratory for CPS faculty and students.
- Creating and managing a statistical consultation service supporting over 40 faculty and 300 graduate students per year.

## Department committees

- Academic accreditation
- Faculty search
- Curriculum
- Student admissions

## University committees and service

- Institutional Review Board (IRB)
- President's Committee on Strategic Technology
- Primary university consultant for SAS programming (through the Center for Academic Computing)

## Quantitative and computing consultation to the

- Center for Psychological Studies
- College of Education
- College of Business
- School of Medicine

**Lecturer**

*Mt. Sinai Medical Center, Department of Surgical Residency, Miami Florida*

*1995 to 1997*

Taught seminars on biostatistics and epidemiology.

**Teaching Faculty**

*Massachusetts School of Professional Psychology, Dedham, Massachusetts*

*1986-1987*

Taught graduate courses in statistics and research methodology; membership on the admissions and IRB committees.

**Visiting Assistant Professor**

*Psychology Department, Clemson University, Clemson, South Carolina*

*1983-1984*

Taught undergraduate courses in psychology and served as the primary university consultant for SPSS programming.

**Research Psychologist and Statistical Consultant**

*Department of Psychiatry and Human Behavior, Brown University Medical School*

*1986-1987*

Research and statistical consultation, staff training and supervision, grant writing, project management, and the provision of statistical seminars.

**Research Consultant**

*Department of Special Education, Rhode Island College*

*1985-1986*

Statistical consultant and collaborator for March of Dimes sponsored research.

**Senior Research Specialist**

*Department of Psychiatry, University of Missouri-Columbia School of Medicine*

*1980-1982*

Research, statistical, and psychometric consultation on multidisciplinary mental health oriented investigations; project management; and the provision of advanced seminars on applied research and computer methodology.

**QUANTITATIVE SKILLS**

Broad experience with experimental, observational, and qualitative research designs.

Expert knowledge of linear and generalized linear models (including ANOVA-ANCOVA- MANCOVA, hierarchical linear models, multiple, logistic and Poisson regression, quantile regression, and survival analysis); latent variable modeling (including factor analysis and structural equation modeling, multidimensional scaling, and correspondence analysis), and nonparametric statistics and robust methods (including permutation and bootstrapping).

Advanced knowledge of data mining, machine learning, and predictive analytics (including cluster analysis, classification and regression trees, random forests, support vector machines, neural networks, and times series analysis).

Extensive experience applying psychometric theory and survey research methodologies to practical research problems.

## QUANTITATIVE COMPUTER SKILLS

### Expert level programming skills in R, SAS, SPSS, and SQL.

Strong working knowledge of specialized software for structural equation modeling, hierarchical linear modeling, and item response theory. Expertise in the creation and management of research databases. Software development and systems administration experience on Linux, Windows, and Mac OSX platforms.

*Additional languages:* C/C++, PERL, C Shell, JavaScript.

## EDUCATIONAL TECHNOLOGIES

Extensive experience creating internet based applications (web sites and portals, discussion forums, blogs, groupware and content management systems).

Experience creating and delivering on-line course to a global audience via Zoom, WebEx, GoToMeeting, and Adobe Connect.

*Additional software:* Camtasia, Articulate E-Learning Software and Authoring Tools, Drupal, Joomla, and DNN.

## COURSES TAUGHT

### Undergraduate

- Applied Data Analysis
- Data Journalism
- Machine Learning and Data Mining
- Exploratory Data Analysis and Pattern Discovery
- Advanced R Programming and Software Development
- Introduction to Psychology
- The Psychology of Adjustment
- Abnormal Psychology

### Masters

- Research Methodology
- Statistical Methods

### Doctoral

- Research Methodology
- ANOVA and Regression
- Multivariate Statistics
- Advanced Multivariate Statistics
- Research Consulting Skills

## BOOKS

Kabacoff, R. (in press). *Modern data visualization with R* (The R Series). Florida: Chapman & Hall.

Kabacoff, R. (2022). *R in Action: Data analysis and graphics with R and Tidyverse* (3<sup>rd</sup> ed.). NY: Manning.

Girden, E., & Kabacoff, R (2010). *Evaluating research articles from start to finish* (3<sup>rd</sup> Ed.). CA: Sage.

## Book Chapters

Kabacoff (2008). Working effectively in global environments: New findings about leadership and country culture. In R. Presiosi (Ed.) *Pfeiffer 2008 Annual on Management Development* (pp. 195-214). San Francisco, CA: Pfeiffer.

Burns, W., Burns, K., & Kabacoff, R. (1992). Item and factor analyses of the Bayley Scales of Infant Development. In C. Rovee Collier (Ed.), *Advances in Infancy Research (Vol. 7)*. Abtex.

## INVITED WORKSHOPS

Kabacoff, R. (2022). Modern data visualization with R. Workshop presented virtually for the Southern California chapter of the *American Statistical Association*. (1 day).

Kabacoff, R. (2014). An introduction to R for data analysts. Workshop presented at the *American Statistical Analysis Conference on Statistical Practice*, Tampa, FL. (1 day)

Kabacoff, R. (2014). R for SAS Users. Workshop conducted for Machine Learning division of a Fortune 50 Health Insurance organization, Hartford, Connecticut. (2 days)

Kabacoff, R. (2014). Introduction to R for Data Analysis and Graphics, *American Statistical Association – Cleveland Chapter*, Cleveland, OH. (1 day)

Kabacoff, R. (2014). Predictive Analytics: Working with Big Data. Workshop conducted for Machine Learning division of a Fortune 50 Health Insurance organization, Hartford, Connecticut. (1 day)

Kabacoff, R. (2014). R for software developers and data analysts. Workshop conducted for the *Association of Computing Machinery*, Boston, MA. (1 day)

Kabacoff, R. (2013). Beginning and advanced data analysis and visualization for anthropometric data. Workshop conducted for the *Joint POW/MIA Accounting Command, Department of Defense*, Honolulu, Hawaii. (7 days)

Kabacoff, R. (2013). Applications of generalized linear models, data mining, and time series analysis with R. Workshop conducted for the Financial Analytics division of a global Credit Reporting organization, Chicago, Illinois. (3 days)

*Kabacoff, R. (2013). Introduction to R graphics and data mining techniques. Workshop conducted for Media and Market Research organization, Detroit, Michigan. (3 days)*

Kabacoff, R. (2013). Practical data visualization with R. Workshop conducted for the *Association of Computing Machinery*, San Francisco, CA. (1 day)

Kabacoff, R. (2012). Beginning and advanced data analysis and visualization for anthropometric data. Workshop conducted for the *Joint POW/MIA Accounting Command, Department of Defense*, Honolulu, Hawaii. (7 days)

Kabacoff, R. (2012). R analytics for software developers and data analysts. Workshop conducted for the *Association of Computing Machinery*, San Francisco, CA. (1 day)

## RECENT PRESENTATIONS

Jacobsen, J., Kabacoff, R., Khamis, M., & Yuksel, M. (2017). Determinants of women's work and earnings: Can machine learning broaden our perspective? Paper presented at the *26<sup>th</sup> Annual IAFFE Conference*, Seoul, Korea.

Kabacoff, R. (2014). R for data analysis and graphics. Paper presented at the *American Statistical Analysis Conference on Statistical Practice*, Tampa, FL.

Kabacoff, R. (2014). Leadership best practices for senior executives in Europe. Symposium conducted for the *International Institute for Management Development (IMD)*, Lausanne, Switzerland.

Kabacoff, R. (2014). Leadership development in humanitarian organizations. Symposium conducted for the *International Committee of the Red Cross*, Geneva, Switzerland.

Kabacoff, R. (2014). Coaching to break the glass ceiling. Paper presented at the *Harvard Medical School: Coaching in Leadership and Healthcare Conference*, Boston, MA.

Kabacoff, R. & Estienne, M. (2013). Are you a coach who is cross culturally competent? Paper presented at the *Harvard Medical School: Coaching in Leadership and Healthcare Conference*, Boston, MA.

Kabacoff, R., & Ringwood, D. (2013). Leading across boundaries: Country differences in leadership. Paper presented at the *3<sup>rd</sup> Annual International Conference on Business Strategy and Organizational Behavior*, Singapore.

Kabacoff, R. (2012). The glass ceiling revisited: Gender and perceptions of competency. Paper presented at the *26th Annual Convention of the Society for Industrial and Organizational Psychology*, San Diego, CA.

Kabacoff, R. (2012). The Changing Landscape of the CHRO Role. Symposium conducted for the *Human Resources Management Association of Chicago - Chief HR Officers Roundtable*. Chicago, IL.

Kabacoff, R. (2010). Leadership best practices for front line supervisors. Paper presented at the *24th Annual Convention of the Society for Industrial and Organizational Psychology*, Atlanta, GA.

Kabacoff, R. (2007). Assessing work motivation across cultural boundaries: Applications of SEM, IRT and sampling methodologies to the problem of measurement invariance in cross-cultural research. Paper presented at the *22<sup>nd</sup> Annual Convention of the Society for Industrial and Organizational Psychology*, New York, NY.

Kabacoff, R. (2007) Cross-Cultural personality comparisons: Issues and guidelines for the creation and use of global norms. Paper presented at the *Association of Test Publishers' Innovations in Testing 2007*, Palm Springs, CA.

Kabacoff, R. (2007). Leading across cultures. Symposium conducted for *the Conference Board*. New York City.

## JOURNAL ARTICLES

Kabacoff, R. (2013). Leading across boundaries: Country differences in leadership. *International Journal of Contemporary Research in Management, Engineering and Health Sciences, 1*, 76-81.

Kabacoff, R. (2008). Issues of global and local norm use in the assessment of motivation. *International Journal of Testing, 8*, 1-17.

Sessa, V., Kabacoff, R., & Deal, J. (2007). Generational differences in leader values and leadership behaviors. *The Psychologist-Manager Journal, 10*, 1-28.

Segal, D., Hersen, M., Kabacoff, R., Falk, S., Van Hasselt, V., & Dorfman, K. (1998). Personality disorders and depression in community-dwelling older adults. *Journal of Mental Health and Aging, 4*, 171-182.

Kabacoff, R., Segal, D., Hersen, M., & Van Hasselt, V. (1997). Psychometric properties and diagnostic utility of the Beck Anxiety Inventory and the State-Trait Anxiety Inventory with older adult psychiatric patients. *Journal of Anxiety Disorders, 11*, 33-47.

Orvaschel, H., Beeferman, D., Kabacoff, R. (1997). Depression, self-esteem, sex, and age in a child and adolescent clinical sample. *Journal of Clinical Child Psychology, 26*, 285-289.

Kogan, E., Van Hasselt, V., Hersen, M., & Kabacoff, R. (1995). Relationship of depression, assertiveness, and social support in community-dwelling older adults. *Journal of Clinical Geropsychology, 1*, 157-187.

Hersen, M., Kabacoff, R., & Van Hasselt, V. (1995). Psychometric properties of the Wolpe-Lazarus Assertiveness Scale with older adult psychiatric outpatients. *International Journal of Rehabilitation and Health, 1*, 179-187.

Segal, D., Kabacoff, R., Hersen, M., Van Hasselt, V., & Ryan, C. (1995). Update on the reliability of diagnosis in older psychiatric outpatients using the Structured Clinical Interview for DSM-III-R. *Journal of Clinical Geropsychology, 1*, 313-321.

Kogan, E., Hersen, M., Kabacoff, R., & Van Hasselt, V. (1995). Psychometric properties of the Wolpe-Lazarus Assertiveness Scale with community-dwelling older adults. *Journal of Psychopathology and Behavioral Assessment, 17*, 97-110.

Hersen, M., Kabacoff, R., Van Hasselt, V., Null, J., Ryan, C., & Melton, M. (1995). Assertiveness, depression, and social support in older visually impaired adults. *Visual Impairment and Blindness, 86*, 524-530.

Burger, G., & Kabacoff, R. (1994). Prototypical Factor Scale Profiles: Potential uses in assessment and selection. *Consulting Psychology Journal, 46*, 12-18.

- Miller, I., Kabacoff, R., Epstein, N., Bishop, D., Keitner, G., Baldwin, L., van der Spuy, H. (1994). The Development of a Clinical Rating Scale for the McMaster Model of Family Functioning. *Family Process*, 33, 53-69.
- Kogan, E., Kabacoff, R., Hersen, M., & Van Hasselt, V. (1994). Clinical cutoffs for the Beck Depression Inventory and the Geriatric Depression Scale with older adult psychiatric outpatients. *Journal of Psychopathology and Behavioral Assessment*, 16, 233-242.
- Segal, D., Hersen, M., Van Hasselt, V., Kabacoff, R., & Roth, L. (1993). Reliability of diagnoses in older patients using the structured clinical interview for DSM-III-R. *Journal of Psychopathology and Behavioral Assessment*, 15, 347-356.
- Kabacoff, R., Miller, I., Bishop, D., Epstein, N., & Keitner, G. (1990). A psychometric study of McMaster Family Assessment Device in psychiatric, medical, and nonclinical samples. *Journal of Family Psychology*, 3, 431-439.
- Kochanek, T., Kabacoff, R., & Lipsitt, L. (1990). Conceptualizing and researching surveillance programs for developmentally disabled and at risk children from birth to seven years. *Exceptional Children*, 56, 528-538.
- Overholser, J., Kabacoff, R., & Norman, W. (1989). The assessment of personality characteristics in depressed and dependent psychiatric inpatients. *Journal of Personality Assessment*, 53, 40-50.
- Kochanek, T., Kabacoff, R., & Lipsitt, L. (1987). Early detection of handicapping conditions in infancy and early childhood: Toward a multivariate model. *Journal of Applied Development Psychology*, 8, 411-420.
- Miller, I., Kabacoff, R., Keitner, G., Epstein, N., & Bishop, D. (1986). Family functioning in the families of psychiatric patients. *Comprehensive Psychiatry*, 27, 302-312.
- Burger, G., & Kabacoff, R. (1985). An MMPI short form for predicting shape and elevation. *Multivariate Experimental Clinical Research*, 7, 95-102.
- Kabacoff, R., Marwit, S., & Orlofsky, J. (1985). Correlates of sex-role stereotyping among mental health professionals. *Professional Psychology*, 16, 98-105.
- Burger, G., & Kabacoff, R. (1984). Using typological systems to assess the relationships between personality inventories. In H.G. Tittman (Ed.), *Advances in Biosciences: Vol. 47. Advanced Concepts in Alcoholism*. NY: Pergamon Press.
- Kabacoff, R., & Burger, G. (1984). PROF: A computer program for analyzing group differences based upon profile data. *Educational and Psychological Measurement*, 44, 667-670.
- Burger, G., & Kabacoff, R. (1983). Relationships between two 16PF interpretive systems. *Multivariate Experimental Clinical Research*, 6, 111-118.
- Burger, G., Kabacoff, R. (1983). Using Q-type factor analysis to study the relationships among personality inventories. *Interdisciplinaria*, 4, 141-151.



Hekmat, F., Kabacoff, R., & Klein, H. (1983). Motivations for childbearing and fertility behavior among urban and rural families in Iran. *Birth Psychology Bulletin*, 4, 26-39.

Kabacoff, R., Shaw, I., Putnam, G., & Klein, H. (1983). Comparison of administrators and direct service workers in agencies dealing with the elderly. *Psychological Reports*, 52, 979-985.

Mrad, D., Kabacoff, R., & Duckro, P. (1983). Validation of Megargee's MMPI typology in a half-way house setting. *Criminal Justice and Behavior*, 10, 252-262.

Burger, G., Kabacoff, R. (1983). Personality types as measured by the 16PF. *Journal of Personality Assessment*, 46, 175-180.

### **Journal Articles (Submitted)**

Budhiraja, A., & Kabacoff, R. (2018). Accurate classification of schizophrenic patients with Boruta feature selection. *Journal of Neuroscience Methods*.

### **PUBLISHED PROCEEDINGS**

Kabacoff, R. (2011). Combining the results of multiples SAS PROCs in publication quality tables. *Proceeding of the Northeast SAS Users Group*. Portland, ME.

Kabacoff, R. (2002). Determining the dimensionality of data: A SAS® macro for parallel analysis. *Proceedings of the 27th Annual Meeting of the SAS Users Group International*. Cary, NC: SAS Institute.

Kabacoff, R. (1996). Developing Interfaces between the World Wide Web and statistical applications. *Proceedings of the 27th Symposium on the Interface: Computing Science and Statistics*.

Kabacoff, R. (1996). Developing World Wide Web tools for statistical education. *Proceedings of the Annual Meeting of the American Statistical Association*.

### **Magazine Articles (Online and in Print)**

Kabacoff, R. (December, 2013). Developing strategic thinkers throughout your organization, *Harvard Business Review* (<http://blogs.hbr.org/2014/02/develop-strategic-thinkers-throughout-your-organization>)

Kabacoff, R. (August, 2008). Sorting out strategic leadership. *The Wall Street Journal*. (<http://online.wsj.com/news/articles/SB125311230836315997>)

Peters, H., & Kabacoff, R. (2001). HR leaders at the crossroads: Remaining relevant in the 21st century. *HR Professional*, 18, 18-25.

## WEBSITES

*qacBase* (2022 – present). R package for data management and exploratory data analysis.  
<https://rkabacoff.github.io/qacBase>.

*qacReg*(2022 – present). R package for multiple linear and logistic regression.  
<https://rkabacoff.github.io/qacReg>.

*qacDR* (2022 – present). R package for principal component analysis, factor analysis and cluster analysis.  
<https://rkabacoff.github.io/qacDR>.

*qacData*(2022 – present). R package containing datasets for data science instruction.  
<https://rkabacoff.github.io/qacData>.

*Modern Data Visualization with R* (2022-present). Draft of upcoming book for CRC Press.  
<https://rkabacoff.github.io/datavis>.

*Quick-R* (2011 - present). An online guide to statistical programming and graphics with the R language.  
Quick-R currently averages 350,000 visitors a month. <http://www.statmethods.net>

*Inter-Links™* (1993-1997). A popular and innovative web portal for students and educators, logging more than 3 million visitors per month.

## MEMBERSHIPS IN SOCIETIES

American Statistical Association  
American Psychological Association  
Royal Statistical Society

## PREVIOUS EDITORIAL ACTIVITIES

Institutional Research Committee, *Society of Industrial and Organizational Psychology*

Editorial Advisory Board, *Journal of Clinical Geropsychology*

Editorial Consultant (Quantitative)

Duke University Press  
Social Science Computer Review  
Journal of Abnormal Psychology  
Clinical Psychology Review  
Infant Behavior and Development  
Journal of Anxiety Disorders  
Journal of Family Violence  
Psychotherapy in Private Practice

**REFERENCES**

Michel Hersen, Ph.D.,  
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