

JOHN V. COLIAS, Ph.D.
1845 E. Northgate Dr.
Irving, TX 75062-4736

Work: (972) 721-5235
Email: jcolias@udallas.edu

2017-Present, Affiliate Assistant Professor, Business Analytics, University of Dallas, Irving, TX

- Serve as Director of Business Analytics Program
- Teach Business Analytics courses: Predictive Modeling, Forecasting Methods, Business Analytics Practicum

2004 - Present, Senior Vice President, Decision Analyst, Arlington, TX

- Lead the development of new analytical methods and tools, particularly in the areas of database predictive modeling, forecasting, and choice modeling.
- Train marketing research staff in new methods
- Contribute to analyses in the following areas: optimization of product features, packaging, pricing, promotion, advertising and marketing mix, customer segmentation, demand analysis and forecasting for new products/services, database predictive analytics/data mining, brand evaluation and development, customer satisfaction, and employee satisfaction.

TECHNICAL EXPERTISE

Extensive experience with

- Predictive modeling and machine learning.
- Bayesian MCMC methods, latent-class models, method of simulated likelihood, and maximum likelihood
- Latent class cluster and factor models, CHAID, k-means and hierarchical cluster analyses
- Econometrics, panel data econometrics (fixed-effects, random coefficients, self-selectivity correction)
- Market Mix Modeling and Simulation/Optimization
- Discrete choice and conjoint modeling methods, including multinomial logit model, mixed logit, rank-ordered logit, nested logit, probit, tobit, ordered logit/probit, importance sampling of alternatives, attribute-based screening rules, poisson and negative binomial models
- Experimental design for choice modeling
- Structural equation modeling
- Operations Research (linear / non-linear programming, stochastic programming)
- Survey questionnaire design for a broad variety of custom marketing research applications

Programming proficiency in R Language, Excel, SAS, SPSS, Latent Gold, Sawtooth HB Choice, GAUSS, GAMS, LIMDEP, Python, and Numpy.

SELECTED SEMINARS AND PRESENTATIONS DELIVERED

- Presented machine learning segmentation method at Corporate Researchers Conference (2017).
- Created and delivered webinars in choice modeling, media mix modeling, and fusion of data science and marketing research (2016-2017).
- Delivered Introduction to R Workshop to Society for Insurance Research (2016).
- Delivered training seminars in the use of the ChoiceModelR package for choice modeling.
- Delivered multiple training seminars to marketing research staff. Topics included multivariate statistics, choice and conjoint modeling, segmentation analysis, key driver analysis, perceptual mapping, pricing analysis, volumetric forecasting, and predictive modeling (2004 – 2016).
- Trained staff of 5 analysts in statistical modeling and building Excel simulation tools (2004-2016).
- Delivered over 40 presentations at major industry conferences (1986 – 2016).
- Taught introductory microeconomics, Birmingham Southern College (1986).
- Taught introductory microeconomics and macroeconomics, University of Texas at Austin (1983-84).

- Published 4 papers in industry journals (*Quirk's Marketing Research Review 2005, CASRO Journal 2002, Canadian Journal of Marketing Research 1995*).
- Published 3 papers in conference proceedings (ESOMAR Congress 2008, Academy of Management Annual Meeting 2014, ESOMAR Congress 2016)
- Refereed submissions for *Journal of Regulatory Economics (1993 – 1994)*.

PAST WORK HISTORY

1995 - 2004, VICE PRESIDENT, M/A/R/C Research, Irving, TX

Held primary responsibility for design and analysis of custom research, product optimization, segmentation, demand analysis for new products/services, client companies' strategy development, and customer satisfaction. Wrote proposals, executed analyses, developed marketing simulation tools and wrote final reports. Presented research findings to clients, presented at international and national conferences, and managed the marketing science staff.

1985 - 1995, RESEARCH ECONOMIST, BellSouth Telecommunications, Birmingham, AL

Designed and executed quantitative research on fundamental marketing issues: competitive impacts, new product forecasting, price elasticity analysis, market share analysis, and customer switching behaviors. Projected potential demand for 57 new communications services and served as an expert witness before the Georgia Public Service Commission. Held lead responsibility for (a) creating econometric and simulation models, (b) developing survey-based marketing models, (c) evaluating, writing and interpreting results for key BellSouth decision makers, (d) preparing econometric evidence for use by BellSouth at public service commission hearings.

1983 – 1985, The IC² Institute, Austin, TX: Created a multi-sectoral applied general equilibrium model for the United States economy -- topic of dissertation

1982, The World Bank: Created a Social Accounting Matrix for the Egyptian Economy.

PERSONAL

Ph.D. in Economics (1985), The University of Texas at Austin – concentrations in Econometrics and Mathematical Modeling.

Publications, Presentations and Papers

- Colias, John and Dustin Cannon (2017), "Machine Learning Segmentation in the Digital Age", To be presented at the Corporate Researchers Conference, Chicago.
- Colias, John (2016), "Fusing Marketing Research and Data Science: Using Technology to Deliver Greater Insights into Consumer Behavior," ESOMAR Congress 2016 Presentation and Publication in Conference Proceedings, New Orleans.
- Colias, John (2016), "Fusing Marketing Research and Data Science: Using Technology to Deliver Greater Insights into Consumer Behavior," ESOMAR Congress 2016 Presentation and Publication in Conference Proceedings, New Orleans.
- Colias, John (2016), "Introduction to the R Language," Hands-on workshop covering installation of R, data input, data management, basic statistics and graphs, Presented at 2016 Society of Insurance Research Spring Workshop, Chicago.
- Colias, John and Rod Carver (2015), "Big Data, Little Data, Better Data," Presented at Home Improvement Research Institute 2015 Spring Conference, Orlando.
- Colias, John and Phil Jackson (2015), "Choice Modeling, Research Methods and Applications," Presented at Society of Insurance Research Spring Workshop, 2015, Cleveland.
- Colias, John (2014), "Using the Open-Source R Language to Model Store Sales," Presented at American Statistical Association on Statistical Practice, Tampa.
- Benson, George S., M. Salazar, John V. Colias, and Marcus Butts (2014), "Discrete Choice Models in Organizational Research: An Introduction to Hierarchical Bayes Estimation," *Academy of Management Annual Meeting Proceedings*.
- Colias, John (2013), "Analytics in the Cloud, R Language in Analytics Workshop," Presented at 43rd Annual Society of Insurance Research Conference, San Antonio.
- Carver, Rod, Jim King, and John Colias (2013), "Using the Open-Source R Language to Model Store Sales," Presented at STI: PopStats Research Conference, Austin.
- Colias, John and Dustin Cannon (2013), "The Evolution of Marketing Research," Presented at University of Texas at Arlington MSMR Alumni Marketing Research Conference, Arlington.
- Colias, John (2013), Interviewed by Research Business Daily Report about the R Language <http://www.youtube.com/watch?v=98b-aF-NvrU>.
- Townsend, Brett, Jerry Thomas, and John Colias (2012) "R Language Choice Modeling," Presented at The IIR Market Research Event, 2012, Boca Raton.
- Sermas, Ryan and John Colias (2012) "ChoiceModelR," Open-Source Choice Modeling Software Package Written in the R-Language, <http://cran.r-project.org/web/packages/>.
- Colias, John and Dustin Cannon (2011), "Message Optimization using Discrete Choice Analysis in the Energy Sector", Presented at Predictive Analytics World Conference, 2011, San Francisco.
- Colias, John and Basile Goungetas (2010). "Choice Modeling and Market Simulation in the Telecommunications Sector," Presented at Predictive Analytics World Conference, 2010, San Francisco.

- Colias, John (2009). "Choice Modeling and Market Simulation in the Telecommunications Sector," Presented at The IIR Market Research Event, 2009, Las Vegas.
- Colias, John (2009). "Simulated Data Improves Data Quality," Presented at The Research Industry Summit on Data Quality (co-located with The IIR Market Research Event), 2009, Las Vegas.
- Colias, John and Michael Richarme (2008). "Realism in Research: Innovative Utilization of 3D Animation Qualitative and Quantitative Research Methodologies," ESOMAR Congress 2008 Presentation and Conference Proceedings.
- Colias, John (2008). "Choice Model Calibration" Decision Analyst White Paper.
- Colias, John (2007). "New Statistical Tools for Key Driver Analysis," Decision Analyst White Paper.
- Colias, John, Beth Horn, and Ellen Wilkshire (2007). "Improving Customer Satisfaction and Loyalty with Time-Series Cross-Sectional Models," Decision Analyst White Paper.
- Colias, John (2007). "Global Segmentation – Dealing with Cross-Cultural Differences in Survey Rating Scale Usage," Decision Analyst White Paper.
- Colias, John and Beth Horn (2006). "Predictive Modeling—Incorporating Time Series Variability to Improve Market Outcome Prediction," Presented at The Market Research Event 2006, Los Angeles.
- Colias, John and Beth Horn (2006). "Simulating Preferred Bundles of Values and Beliefs," Presented at AAPOR 61st Annual Conference, Montreal.
- Colias, John (2005). "Choice modeling analytics – the benefits of new methods," Quirk's Marketing Research Review, October 2005, pp. 18-23.
- Colias, John and Leyla Namiranian (2005). "Analyzing European Data Across Countries," Presented at CASRO University's International Research Conference: Spotlight on Europe, New York.
- Colias, John and Beth Horn (2005). "Predictive Accuracy of Survey-Based Choice Models with Alternative Consideration Sets and Calibration Approaches," Poster presented at the 16th Annual Advanced Research Techniques Forum, Couer D'Alene, Idaho.
- Colias, John and Johnny Kwan (2004). "Choice Models with Attribute-Based Screening Rules: Validation for OTC Medications & Communications Service Packages," Poster presented at the 15th Annual Advanced Research Techniques Forum, Whistler, British Columbia.
- Colias, John (2002). "Recent Advances in Survey-Based Analyses of Brand Market Share," Tutorial presented at the 20th Annual ICFC Conference, San Francisco.
- Colias, John, Don Kridel, and John Watters (2002). "Strategic Marketing & Forecasting: Modeling and Mining for More Insightful Answers," Internationally attended, pre-conference one day course.
- Colias, John and John Watters (2002). "The Simple Secret to Effective Market Research," *CASRO JOURNAL*.
- Colias, John V., Ravi Venkitaraman, and Shiv Raman (1999). "A Parameter Efficient Alternative for Modeling Competitive Effects with a Multi-Industry Validation," Presentation at the Tenth Annual Advanced Research Techniques Forum, Santa Fe.

- Colias, John V. and Andrew Ma (1999). "Forecasting Telecommunications Brand Switching and Product Sales With Local Competition," Tutorial presented at the 17th Annual ICFC Conference, Denver.
- Colias, John V. and Andrew Ma (1998). "Forecasting Customer Responses to Competitive Entry in Telecom," Presentation at the 1998 International Communications Forecasting Conference, St. Louis.
- Colias, John V. (1997). "Survey-Based Forecasting in Telecommunications." Tutorial Presented at the 1997 International Communications Forecasting Conference, San Francisco.
- Colias, John V. and Steve Perry (1997). "Examining How To Use A Survey Based Approach To Forecast The Impact Of New Competitors, Products And Services On The Telecoms Market," Presentation at Market Forecasting in the Telecoms Industry, London.
- Colias, John V. and Ravi Venkitaraman (1996). "The Link Between Perceived Performance, Overall Service Quality, and Actual Buying Decisions: An Alternate Survey-Based Approach," Presentation at the Fifth Annual Frontiers in Services Conference, Nashville.
- Colias, John V. (1996). "One-Stop Shopping for Communications Services: Research Method and Design," Presentation at the 1996 International Communications Forecasting Conference, Dallas.
- Colias, John V. and Carlos Salazar-Velasquez (1995). "Integrating the Rank-Ordered Logit Model with Purchase Intent," *Canadian Journal of Marketing Research*, Vol. 14, pp. 46-56.
- Colias, John V. and Carlos Salazar-Velasquez (1995). "Competition in the IntraLATA Long Distance Market Under 10XXX and 1+ Presubscription: Myth and Reality," Presented at the Fourth Annual Frontiers in Services Conference, Nashville.
- Colias, John V. and Carlos Salazar-Velasquez (1994). "Competitive Assessment and New Product/Service Forecasting: The Rank-Ordered Logit Survey Econometric Approach," Presentation at the 1994 Advanced Research Techniques Forum, Beaver Creek.
- Colias, John V. and Carlos Salazar-Velasquez (1994). "Measuring the Impact of IntraLATA Competition on the Local Exchange Companies," Presentation at the 1994 Eastern Conference of the Advanced Workshop in Regulation and Public Utility Economics, Newport.
- Colias, John V. and Carlos Salazar-Velasquez (1993). "The Impact of IntraLATA Competition on the Local Exchange Carriers," Presentation at the 1993 Western Conference of the Advanced Workshop in Regulation and Public Utility Economics, Monterey
- Colias, John V. (1993). "Statistical Modeling Related to Hurricane Andrew," Supporting Document for Testimony of Walter S. Reid, Docket No. 920260-TL, Florida Public Service Commission.
- Colias, John V. and Carlos Salazar-Velasquez (1992). "Measuring the Impact of IntraLATA Competition on the Local Exchange Companies and The Demand for Advanced Intelligent Network Wireless Features," Presentation at the 1992 National Regulatory Research Institute Conference, Denver.
- Colias, John V. and Carlos Salazar-Velasquez (1992). "The Demand for Advanced Intelligent Network Wireless Features," Paper presented at the 1992 Western Conference of the Advanced Workshop in Regulation and Public Utility Economics, San Diego.

- Colias, John V. and Carlos Salazar-Velasquez (1992). "The Impact of IntraLATA Competition on the Local Exchange Carriers -- A National Demand Equation for IntraLATA Toll Service," Paper presented at the 1992 Western Conference of the Advanced Workshop in Regulation and Public Utility Economics, San Diego.
- Colias, John V. (1991). "Estimation of Time of Day/Week Own- and Cross-Price Elasticities: A Comparison of Continuous and Discrete Models of Local Use," Paper presented at 1991 Tenth Annual Eastern Conference of the Advanced Workshop in Regulation and Public Utility Economics, Cooperstown.
- Colias, John V. (1990). "An On-Line Facilities Rearrangement Service," Paper presented at Bellcore 1990 National Forecasting Conference, St. Louis.
- Colias, John V. (1989). "New Feature Offering and Discrete Choice Models of Number of Features, An Application with Nested Logit," Paper presented at Bellcore 1989 Business Research Conference, Baltimore.
- Colias, John V. and Lorraine Maddox (1988). "Analysis of Demand for Kentucky Local Telephone Usage," Attachment I to testimony of Lorraine Maddox in Administrative Case No. 285, Kentucky Public Service Commission.
- Colias, John V. and Lorraine Maddox (1988). "Alternative Price Elasticities for Local Usage," Paper presented at Bellcore 1988 Business Research Conference, San Francisco.
- Colias, John V., Lorraine Maddox, and Rick Durden (1988). "Local Measured Service Trial and Kentucky Application," Paper presented at 1988 Bellcore/Bell Canada Industry Forum on Telecommunication Demand Analysis, Key Biscayne.
- Colias, John V. (1988). "An Applied General Equilibrium Model of the United States Economy," In Economic Modelling in the OECD Countries, edited by Homa Motamen, London: Chapman and Hall.
- Colias, John V. (1986). "An Applied General Equilibrium Model of the United States Economy," Paper presented at First International Conference on Economic Modelling, London.
- Colias, John V. (1985). A Sectoral Applied General Equilibrium Model of the United States Economy, Ph.D. dissertation, The University of Texas at Austin.
- Colias, John V. (1984). "Aggregation of Input-Output, Value Added, and Final Sales Data: A GAMS Program Explained with Matrix Algebra," Working Paper No. 84-08-3. IC2 Institute, The University of Texas at Austin.
- Colias, John V. (1984). "The Derivations of the Equations of a Small Multi-sectoral Model: The Miniature ORANI Model of the Economy," Working Paper No. 84-01-3, IC2 Institute, The University of Texas at Austin.