

Dr. Richard J. Charnigo, Jr.
Curriculum Vitae – December 2013

Basic Information

Contact Information

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Employment

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|---|-----------------------|
| Professor | July 2013- |
| <i>University of Kentucky</i> | |
| Department of Biostatistics (College of Public Health) | |
| Department of Statistics (College of Arts and Sciences) | |
| Associate Professor | July 2009-June 2013 |
| <i>University of Kentucky</i> | |
| Department of Biostatistics (College of Public Health) | |
| Department of Statistics (College of Arts and Sciences) | |
| Assistant Professor | July 2004-June 2009 |
| <i>University of Kentucky</i> | |
| Department of Biostatistics (College of Public Health) | |
| Department of Statistics (College of Arts and Sciences) | |
| Assistant Professor | August 2003-June 2004 |
| <i>University of Kentucky</i> | |
| Department of Statistics (College of Arts and Sciences) | |
| Division of Biostatistics (School of Public Health) | |

Education

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| Ph.D. in Statistics | 1999-2003 |
| <i>Case Western Reserve University</i> | |
| <u>Dissertation</u> : “Testing Homogeneity in Finite Mixtures and a Semi-Local Paradigm for Wavelet Denoising” | |
| <u>Advisor</u> : Jiayang Sun | |
| M.S. in Mathematics | 1997-1999 |
| <i>Case Western Reserve University</i> | |
| B.S. in Mathematics | 1994-1997 |
| <i>Case Western Reserve University</i> | |
| Minor fields: Statistics and Economics | |

Research Interests, Publications, and Presentations

Research Interests

- Theory and methods for mixture modeling and microarray data analysis
- Theory and methods for nonparametric regression and nanoparticle characterization
- Applications in cardiology, psychology, organizational behavior, and public health

Publications

1. Smith, Toni; Charnigo, Richard (2002). "On the Nonoptimality of the Compensation System in Major League Baseball." *Compensation and Working Conditions*: Volume 6, pp. 19 – 25.
2. Charnigo, Richard; Sun, Jiayang (2004). "Testing for Homogeneity in Mixture Distributions via the L^2 Distance Between Competing Models." *Journal of the American Statistical Association*: Volume 99, pp. 488 – 498.
3. Steinhubl, Steven; Charnigo, Richard; Moliterno, David (2005). "Resistance to Antiplatelet Resistance: Is It Justified?" *Journal of the American College of Cardiology*: Volume 45, pp. 1757 – 1758.
4. Charnigo, Richard; Sun, Jiayang; Muzic, Raymond (2006). "A Semi-Local Paradigm for Wavelet Denoising." *IEEE Transactions on Image Processing*: Volume 15, pp. 666-677.
5. Steinhubl, Steven; Charnigo, Richard (2006). "Clopidogrel Pretreatment Prior to Percutaneous Coronary Intervention: When Enough Isn't Enough." *Journal of the American Medical Association*: Volume 295, pp. 1581-1582.
6. Barisione, Chiara; Charnigo, Richard; Howatt, Deborah; Moorlegghen, Jessica; Rateri, Debra; Daugherty, Alan (2006). "Rapid Dilation of the Abdominal Aorta During Infusion of Angiotensin II Detected by Noninvasive High Frequency Ultrasound." *Journal of Vascular Surgery*: Volume 44, pp. 372-376.
7. Das, Pranab; Moliterno, David; Charnigo, Richard; Mukherjee, Debabrata; Sneed, Darrell; Steinhubl, Steven; Booth, David; Ziada, Khaled (2006). "Impact of Drug-Eluting Stents on Outcomes of Patients with End-Stage Renal Disease Undergoing Percutaneous Coronary Revascularization." *Journal of Invasive Cardiology*: Volume 18, pp. 405-408.
8. Tackett, Julie; Charnigo, Richard; Caldwell, Glyn (2006). "Relating West Nile Virus Case Fatality Rates to Demographic and Surveillance Variables." *Public Health Reports*: Volume 121, pp. 666-673.
9. John, Vijay; Dai, Hongying; Talati, Ajay; Charnigo, Richard; Neuman, Michael; Bada, Henrietta (2007). "Autonomic Alterations in Cocaine-Exposed Neonates following Orthostatic Stress." *Pediatric Research*: Volume 61, pp. 251-256.
10. Charnigo, Richard; Pilla, Ramani S. (2007). "Semiparametric Mixtures of Generalized Exponential Families." *Scandinavian Journal of Statistics*: Volume 34, pp. 535-551.
11. Charnigo, Richard; Francoeur, Mathieu; Mengüç, M. Pinar; Brock, Audrey; Leichter, Matthew; Srinivasan, Cidambi (2007). "Derivatives of Scattering Profiles: Tools for Nanoparticle Characterization." *Journal of the Optical Society of America A*: Volume 24, pp. 2578-2589.
This was republished as the lead article in the "Structural Properties" section of *Virtual Journal of Nanoscale Science and Technology*: Volume 16, Issue 16, 15 Oct 2007.

12. Dai, Hongying; Charnigo, Richard (2008). "Omnibus Testing and Gene Filtration in Microarray Data Analysis." *Journal of Applied Statistics*: Volume 35, pp. 31-47.
13. Charnigo, Richard; Sun, Jiayang (2008). "Testing Homogeneity in Discrete Mixtures." *Journal of Statistical Planning and Inference*: Volume 138, pp. 1368-1388.
14. Steinhubl, Steven; Oh, Jennifer; Oestreich, Julie; Ferraris, Suellen; Charnigo, Richard; Akers, Wendell (2008). "Transitioning Patients from Cangrelor to Clopidogrel: Pharmacodynamic Evidence of a Competitive Interaction." *Thrombosis Research*: Volume 121, pp. 527-534.
15. Pamuklar, Zehra; Lee, Jin; Cheng, Hsin-Yuan; Pantcharam, Manikandan; Steinhubl, Steven; Morris, Andrew; Charnigo, Richard; Smyth, Susan (2008). "Individual Heterogeneity in Platelet Response to Lysophosphatidic Acid: Evidence for a Novel Inhibitory Pathway." *Arteriosclerosis, Thrombosis, and Vascular Biology*: Volume 28, pp. 555-561.
16. Lu, Hong; Rateri, Debra; Feldman, David; Charnigo, Richard; Fukamizu, Akiyoshi; Ishida, Junji; Oesterling, Elizabeth; Cassis, Lisa; Daugherty, Alan (2008). "Renin Inhibition Reduces Hypercholesterolemia-Induced Atherosclerosis in Mice." *Journal of Clinical Investigation*: Volume 118, pp. 984-993.
17. Simmons, Leigh Ann; Braun, Bonnie; Charnigo, Richard; Havens, Jennifer; Wright, David (2008). "Depression and Poverty among Rural Women: a Relationship of Social Causation or Social Selection?" *Journal of Rural Health*: Volume 24, pp. 292-298.
18. Dai, Hongying; Charnigo, Richard (2008). "Inferences in Contaminated Regression and Density Models." *Sankhya*: Volume 69, pp. 842-869.
19. Crosby, Richard; DiClemente, Ralph; Charnigo, Richard; Snow, Gregory; Troutman, Adewale (2009). "A Brief, Clinic-Based, Safer Sex Intervention for Heterosexual African American Men Newly Diagnosed with an STD: A Randomized Controlled Trial." *American Journal of Public Health*: Volume 99, Supplement 1, pp. 96-103.
20. Huddleston-Casas, Catherine; Charnigo, Richard; Simmons, Leigh Ann (2009). "Food Insecurity and Maternal Depression in Rural, Low-Income Families: A Longitudinal Investigation." *Public Health Nutrition*: Volume 12, pp. 1133-1140.
21. Sekerka, Leslie; Bagozzi, Richard; Charnigo, Richard (2009). "Facing Ethical Challenges in the Workplace: Conceptualizing and Measuring Professional Moral Courage." *Journal of Business Ethics*: Volume 89, pp. 565-579.
A scale developed in this article has also been included in the PsycTESTS repository:
Sekerka, L.E., Bagozzi, R.P., & Charnigo, R. (2011). Professional moral courage scale (revised form, 3/21/11). PsycTESTS. Washington, D.C.: American Psychological Association.
22. Oestreich, Julie; Holt, John; Dunn, Steven; Smyth, Susan; Campbell, Charles; Charnigo, Richard; Akers, Wendell; Steinhubl, Steven (2009). "Considerable Variability in Platelet Activity among Patients with Coronary Artery Disease in Response to an Increased Maintenance Dose of Clopidogrel." *Coronary Artery Disease*: Volume 20, pp. 207-213.
23. Bailey, Ursula; Lorch, Elizabeth; Milich, Richard; Charnigo, Richard (2009). "Developmental Changes in Attention and Comprehension among Children with Attention Deficit Hyperactivity Disorder." *Child Development*: Volume 80, pp. 1842-1855.

24. Cassis, Lisa; Gupte, Manisha; Thayer, Sarah; Zhang, Xuan; Charnigo, Richard; Howatt, Deborah; Rateri, Debra; Daugherty, Alan (2009). "Angiotensin II Infusion Promotes Abdominal Aortic Aneurysms Independent of Increased Blood Pressure in Hypercholesterolemic Mice." *American Journal of Physiology – Heart and Circulatory Physiology*: Volume 296, pp. H1660-H1665.
25. Syed, Mushabbar; Oshinski, John; Kitchen, Charles; Ali, Arshed; Charnigo, Richard; Quyyumi, Arshed (2009). "Variability of Carotid Artery Lumen and Wall Measurements on 3-Tesla MRI: Implications for Sample Size Calculation for Clinical Research." *International Journal of Cardiovascular Imaging*: Volume 25, pp. 581-589.
26. Lynam, Donald; Charnigo, Richard; Caspi, Avshalom; Moffitt, Terrie; Raine, Adrian; Loeber, Rolf; Stouthamer-Loeber, Magda (2009). "The Stability of Psychopathy Across Adolescence." *Development and Psychopathology*: Volume 21, pp. 1133-1153.
27. Police, Sara; Thatcher, Sean; Charnigo, Richard; Daugherty, Alan; Cassis, Lisa (2009). "Obesity Promotes Inflammation in Periaortic Adipose Tissue and Angiotensin II-Induced Abdominal Aortic Aneurysm Formation." *Arteriosclerosis, Thrombosis, and Vascular Biology*: Volume 29, pp. 1458-1464.
28. Rao, Sunil; Eikelboom, John; Steg, Gabriel; Lincoff, A. Michael; Weintraub, William; Bassand, Jean-Pierre; Rao, A. Koneti; Gibson, C. Michael; Petersen, John; Mehran, Roxana; Manoukian, Steven; Charnigo, Richard; Lee, Kerry; Moscucci, Mario; Harrington, Robert (2009). "Standardized Reporting of Bleeding Complications for Clinical Investigations in Acute Coronary Syndrome: A Proposal from the Academic Bleeding Consensus (ABC) Multidisciplinary Working Group." *American Heart Journal*: Volume 158, pp. 881-886.
29. Dosh, Kristofer; Berger, Peter; Marso, Steven; van Lente, Fredrick; Brennan, Danielle; Charnigo, Richard; Topol, Eric; Steinhubl, Steven (2009). "Association of Baseline Inflammatory Markers, Antiplatelet Therapy and Adverse Cardiac Events following Percutaneous Coronary Intervention: An Analysis from the CREDO Trial." *Circulation – Cardiovascular Interventions*: Volume 2, pp. 503-512.
30. Charnigo, Richard; Sun, Jiayang (2010). "Asymptotic Relationships between the D-Test and Likelihood Ratio-Type Tests for Homogeneity." *Statistica Sinica*: Volume 20, pp. 497-512.
31. Bhandari, Michelyn; Scutchfield, F. Douglas; Charnigo, Richard; Riddell, Martha; Mays, Glen (2010). "New Data, Same Story? Revisiting Studies on the Relationship of Local Public Health Systems Characteristics to Public Health Performance." *Journal of Public Health Management and Practice*: Volume 16, pp. 110-117.
32. Jordan, Carol; Pritchard, Adam; Duckett, Danielle; Charnigo, Richard (2010). "Criminal Offending among Respondents to Protective Orders: Crime Types and Patterns that Predict Victim Risk." *Violence Against Women*: Volume 16, pp. 1396-1411.
33. Dai, Hongying; Charnigo, Richard (2010). "Contaminated Normal Modeling with Application to Microarray Data Analysis." *Canadian Journal of Statistics*: Volume 38, pp. 315-332.
34. Charnigo, Richard; Crosby, Richard; Troutman, Adewale (2010). "Psychosocial Constructs Associated with Condom Use among High-Risk African American Men Newly Diagnosed with a Sexually Transmitted Disease." *Annals of Behavioral Medicine*: Volume 39, pp. 303-310.

35. Uchida, Haruhito; Kristo, Fjoralba; Rateri, Debra; Lu, Hong; Charnigo, Richard; Cassis, Lisa; Daugherty, Alan (2010). "Total Lymphocyte Deficiency Attenuates AngII-Induced Atherosclerosis But Not Abdominal Aortic Aneurysms in ApoE Deficient Mice." *Atherosclerosis*: Volume 211, pp. 399-403.
36. Moore, Gregory; Crosby, Richard; Young, April; Charnigo, Richard (2010). "Low Rates of Free Human Papillomavirus Vaccine Uptake Among Young Women." *Sexual Health*: Volume 7, pp. 287-290.
37. Reynolds, Eric; Grider, Debbie; Caldwell, Rhonda; Capillouto, Gilson; Vijaygopal, Pooja; Patwardhan, Abhijit; Charnigo, Richard (2010). "Swallow-Breath Interaction and Phase of Respiration with Swallow during Nonnutritive Suck among Low-Risk Preterm Infants." *American Journal of Perinatology*: Volume 27, pp. 831-840.
38. Charnigo, Richard; Chesnut, Lorie W.; LoBianco, Tony; Kirby, Russell S. (2010). "Thinking Outside the Curve, Part I: Modeling Birthweight Distribution." *Biomedcentral Pregnancy and Childbirth*: Volume 10, Article 37.
39. Charnigo, Richard; Chesnut, Lorie W.; LoBianco, Tony; Kirby, Russell S. (2010). "Thinking Outside the Curve, Part II: Modeling Fetal-Infant Mortality." *Biomedcentral Pregnancy and Childbirth*: Volume 10, Article 44.
40. Wang, Yuehui; Li, Jianing; Tang, Lihua; Wang, Yu; Charnigo, Richard; de Villiers, Willem; Eckhardt, Erik (2010). "T-Lymphocyte Responses to Intestinally Absorbed Antigens Can Contribute to Mesenteric Adipose Tissue Inflammation and Glucose Intolerance During High Fat Feeding." *Public Library of Science One*: Volume 5, Article 13951.
41. Meyer, Chip; Rahman, Shafiqur; Charnigo, Richard; Dwoskin, Linda; Crabbe, John; Bardo, Michael (2010). "Genetics of Novelty Seeking, Amphetamine Self-Administration, and Reinstatement Using Inbred Rats." *Genes, Brain, and Behavior*: Volume 9, pp. 790-798. PMID: PMC2965303.
42. Charnigo, Richard; Srinivasan, Cidambi (2011). "Stein's Phenomenon." *Philosophy of Statistics*, edited by Prasanta S. Bandyopadhyay and Malcolm Forster. Elsevier, Oxford.
43. Charnigo, Richard; Kryscio, Richard; Bardo, Michael; Lynam, Donald; Zimmerman, Rick (2011). "Joint Modeling of Longitudinal Data in Multiple Behavioral Change." *Evaluation and the Health Professions*: Volume 34, pp. 781-800.
44. Ziada, Khaled; Charnigo, Richard; Moliterno, David (2011). "Long-Term Follow-Up of Drug-Eluting Stents Placed in the Setting of ST-Elevation Myocardial Infarction." *Journal of the American College of Cardiology – Cardiovascular Interventions*: Volume 4, pp. 39-41.
45. Charnigo, Richard; Francoeur, Mathieu; Kenkel, Patrick; Mengüç, M. Pinar; Hall, Benjamin; Srinivasan, Cidambi (2011). "Estimating Quantitative Features of Nanoparticles Using Multiple Derivatives of Scattering Profiles." *Journal of Quantitative Spectroscopy and Radiative Transfer*: Volume 112, pp. 1369-1382.
46. Charnigo, Richard; Srinivasan, Cidambi (2011). "Estimating Multiple Derivatives Simultaneously: What Is Optimal?" *Journal of Biometrics and Biostatistics*: Volume 2, Article 102e.

47. Rateri, Debra; Moorlegghen, Jessica; Balakrishnan, Anju; Owens, Philip; Howatt, Deborah; Charnigo, Richard; Cassis, Lisa; Daugherty, Alan (2011). "Endothelial Cell-Specific Deficiency of AngII Type 1a Receptors Attenuates AngII-Induced Ascending Aortic Aneurysms in LDL Receptor -/- Mice." *Circulation Research*: Volume 108, pp. 574-581.

48. Charnigo, Richard; Srinivasan, Cidambi (2011). "Self-Consistent Estimation of Mean Response Functions and their Derivatives." *Canadian Journal of Statistics*: Volume 39, pp. 280-299.

49. Marcum, Jennifer; Browning, Steven; Reed, Deborah; Charnigo, Richard (2011). "Determinants of Work Hours Among a Cohort of Male and Female Farmers 50 Years and Older in Kentucky and South Carolina (2002-2005)." *Journal of Agromedicine*: Volume 16, pp. 163-173.

50. Marcum, Jennifer; Browning, Steven; Reed, Deborah; Charnigo, Richard (2011). "Farmwork-Related Injury Among Older Farmers in Kentucky and South Carolina: A Cohort Study 2002-2005." *Journal of Agricultural Safety and Health*: Volume 17, pp. 259-273.

51. Elayi, C.S.; Whitbeck, M.G.; Charnigo, Richard; Shah, J.; Macaulay, T.E.; Morales, G.; Gurley, J.C.; Thal, S.; Ching, C.K.; Khaykin, Y.; Verma, A.; Barrett, C.; Bai, R.; Di Biase, L.; Patwardhan, A.; Moliterno, D.J.; Natale, A. (2011). "Is There An Association Between External Cardioversions and Mortality – Insights From the Affirm Study." *Circulation – Arrhythmia and Electrophysiology*: Volume 4, pp. 465-469.

This article was the subject of editorial comment in the same issue.

52. Marusich, Julie; Darna, Mahesh; Charnigo, Richard; Dwoskin, Linda; Bardo, Michael (2011). "A Multivariate Assessment of Individual Differences in Reward Seeking and Inhibition as Predictors of Amphetamine Self-Administration and Prefrontal Dopamine Function in Rats." *Clinical Psychopharmacology*: Volume 19, pp. 275-284.

53. Rateri, Debra; Howatt, Deborah; Moorlegghen, Jessica; Charnigo, Richard; Cassis, Lisa; Daugherty, Alan (2011). "Prolonged Infusion of Angiotensin II Promotes Continued Expansion of Abdominal Aortic Aneurysm Associated with Adventitial Macrophage Recruitment." *American Journal of Physiology*: Volume 179, pp. 1542-1548.

54. Bush, Heather; Charnigo, Richard (2011). "Collecting Health Information: Disease Registry, Product Registry, or Neither?" *Journal of Biometrics and Biostatistics*: Volume 2, Article 103e.

55. Charnigo, Richard; Hall, Benjamin; Srinivasan, Cidambi (2011). "A Generalized C_p Criterion for Derivative Estimation." *Technometrics*: Volume 53, pp. 238-253.

56. Selim, Samy; Sunkara, Manjula; Salous, Abdel; Berdyshev, Evgeny; Bailey, Alison; Campbell, Charles; Charnigo, Richard; Morris, Andrew; Smyth, Susan (2011). "Plasma levels of sphingosine 1 phosphate are strongly correlated with hematocrit but variably restored by red blood cell transfusions." *Clinical Science*: Volume 121, pp. 565-572.

57. Deng, Wei; Charnigo, Richard; Dai, Hongying; Kirby, Russell S. (2011). "Characterizing components in a mixture model for birthweight distribution." *Journal of Biometrics and Biostatistics*: Volume 2, Article 118.

58. Wang, Shaoping; Subramanian, Venkateswaran; Lu, Hong; Howatt, Deborah; Moorleghen, Jessica; Charnigo, Richard; Daugherty, Alan (2012). "Deficiency of Receptor-associated Protein Attenuates Angiotensin II-induced Atherosclerosis in Hypercholesterolemic Mice." *Atherosclerosis*: Volume 220, pp. 375-380.
59. Migongo, Alice; Charnigo, Richard; Love, Margaret; Kryscio, Richard; Fleming, Steven; Pearce, Kevin (2012). "Factors Relating to Patient Visit Time with a Physician." *Medical Decision Making*: Volume 32, pp. 93-104.
60. Yiannikouris, Frederique; Karounos, Michael; Charnigo, Richard; English, Victoria; Rateri, Debra; Daugherty, Alan; Cassis, Lisa (2012). "Adipocyte-specific deficiency of angiotensinogen decreases plasma angiotensinogen concentration and systolic blood pressure in male mice." *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology*: Volume 302, pp. 244-251.
This article was the subject of editorial comment in the same issue.
61. Ingram, Richard; Scutchfield, F. Douglas; Charnigo, Richard; Riddell, Martha (2012). "Local Public Health System Performance and Community Health Outcomes." *American Journal of Preventive Medicine*: Volume 42, pp. 214-220.
62. Lu, Hong; Balakrishnan, Anju; Howatt, Deborah; Wu, Congqing; Charnigo, Richard; Liao, Gene; Cassis, Lisa; Daugherty, Alan (2012). "Comparative effects of different modes of renin angiotensin system inhibition on hypercholesterolaemia-induced atherosclerosis." *British Journal of Pharmacology*: Volume 165, pp. 2000-2008.
63. Wallace, Eric; Abdel-Latif, Ahmed; Charnigo, Richard; Moliterno, David; Brodie, Bruce; Matnani, Rahul; Ziada, Khaled (2012). "Meta-Analysis of Long-Term Outcomes for Drug-Eluting Stents versus Bare-Metal Stents in Primary Percutaneous Coronary Interventions for ST-Segment Elevation Myocardial Infarction." *American Journal of Cardiology*: Volume 109, pp. 932-940.
64. Charnigo, Richard; Francoeur, Mathieu; Kenkel, Patrick; Mengüç, M. Pinar; Hall, Benjamin; Srinivasan, Cidambi (2012). "Credible Intervals for Nanoparticle Characteristics." *Journal of Quantitative Spectroscopy and Radiative Transfer*: Volume 113, pp. 182-193.
65. Jordan, Carol; Clark, James; Pritchard, Adam; Charnigo, Richard (2012). "Lethal and Other Serious Assaults: Disentangling Gender and Context." *Crime and Delinquency*: Volume 58, pp. 425-455.
This article was recognized in *Psychology Progress*, which alerts the scientific community to breaking journal articles considered to represent the best in Psychology research.
66. Sekerka, Leslie; Godwin, Lindsey; Charnigo, Richard (2012). "Use of Balanced Experiential Inquiry to Build Ethical Strength in the Workplace." *Journal of Management Development*: Volume 31, pp. 275-286.
67. Crosby, Richard; Charnigo, Richard; Shrier, Lydia (2012). "Condom Use Errors and Problems Among Teens Attending Clinics: Better or Worse Than Young Adults ?" *Journal of Contraception*: Volume 2012, pp. 17-22.
68. Adams, Zachary; Kaiser, Alison; Lynam, Donald; Charnigo, Richard; Milich, Richard (2012). "Drinking Motives as Mediators of the Impulsivity - Substance Use Relation: Unique Pathways for Negative Urgency, Lack of Premeditation, and Sensation Seeking." *Addictive Behaviors*: Volume 37, pp. 848-855.

69. Zhang, Xuan; Rateri, Debra; Ali, Kamilah; Thatcher, Sean; Bruemmer, Dennis; Charnigo, Richard; Daugherty, Alan; Cassis, Lisa (2012). "Transient Exposure of Neonatal Female Mice to Testosterone Abrogates the Sexual Dimorphism of Abdominal Aortic Aneurysms." *Circulation Research*: Volume 110, pp. 73-85.
70. Fardo, David; Charnigo, Richard; Epstein, Michael (2012). "Families or Unrelated: The Evolving Debate in Genetic Association Studies." *Journal of Biometrics and Biostatistics*: Volume 3, Article 108e.
71. Eisenlohr-Moul, Tory; Walsh, Erin; Charnigo, Richard; Lynam, Donald; Baer, Ruth (2012). "The What and the How of Dispositional Mindfulness: Using Interactions Among Subscales of the Five-Facet Mindfulness Questionnaire to Understand Its Relation to Substance Use." *Assessment*: Volume 19, pp. 276-286.
72. Kaiser, Alison; Milich, Richard; Lynam, Donald; Charnigo, Richard (2012). "Negative Urgency, Distress Tolerance, and Substance Abuse: Examining the Role of Characteristic Responding to Negative Affect." *Addictive Behaviors*: Volume 37, pp. 1075-1083.
73. Crosby, Richard; Shrier, Lydia; Charnigo, Richard; Sanders, Stephanie; Graham, Cynthia; Milhausen, Robin; Yarber, William (2012). "A Prospective Event-Level Analysis of Condom Use Experiences Following STI Testing Among Patients in Three US Cities." *Sexually Transmitted Diseases*: Volume 39, pp. 756-760.
74. Leung, Steve; Elayi, Claude; Charnigo, Richard; Syed, Mushabbar (2012). "Clinical Significance of Right Ventricular Dysfunction in Left Ventricular Non-Compaction Cardiomyopathy Assessed by Magnetic Resonance Imaging." *International Journal of Cardiovascular Imaging*: Volume 28, pp. 1123-1131.
75. Zheng, Yanbing; Charnigo, Richard (2012). "On Selecting Spatial-Temporal Autologistic Regression Models for Binary Lattice Data." *Journal of Biometrics and Biostatistics*: Volume 3, Article 112e.
76. Crosby, Richard; Charnigo, Richard; Weathers, Chandra; Caliendo, Angela; Shrier, Lydia (2012). "Condom Effectiveness against Non-Viral Sexually Transmitted Infections: A Prospective Study Using Electronic Daily Diaries." *Sexually Transmitted Infections*: Volume 88, pp. 484-489.
77. Walsh, Sabrina; Charnigo, Richard (2012). "The National Violent Death Reporting System, County Level Health Status Data and Preventing Suicide." *Suicidology Online*: Volume 3, pp. 92-101.
78. Carter, L.; Lewis, K.; Wilkerson, D.; Tobia, C.; Ngo, S.; Tenlep, P.; Garcia-Cazarin, M.; Wolff, G.; Andrade, F.; Charnigo, Richard; Esser, K.; Egan, J.; de Cabo, R.; Pearson, K. (2012). "Exercise during Pregnancy Improves Glucose Homeostasis in Adult Offspring." *American Journal of Physiology - Endocrinology and Metabolism*: Volume 303, pp. 1061-1068.
79. Yiannikouris, Frederique; Gupte, Manisha; Putnam, Kelly; Thatcher, Sean; Charnigo, Richard; Rateri, Debra; Daugherty, Alan; Cassis, Lisa (2012). "Adipocyte Deficiency of Angiotensinogen Prevents Obesity-Induced Hypertension in Male Mice." *Hypertension*: Volume 60, pp. 1524-1530.
This article was the subject of editorial comment.
80. Dai, Hongying; Charnigo, Richard; Srivastava, Tarak; Talebizadeh, Zohreh; Ye, Shui Qing (2012). "Integrating P-Values for Genetic and Genomic Data Analysis." *Journal of Biometrics and Biostatistics*: Volume 3, Article 117e.

81. Breheny, Patrick; Li, Yinglei; Charnigo, Richard (2012). "Statistical Challenges and Opportunities in Copy Number Variant Association Studies." *Journal of Biometrics and Biostatistics*: Volume 3, Article 118e.
82. Lu, Hong; Wu, Congqing; Howatt, Deborah; Balakrishnan, Anju; Charnigo, Richard; Cassis, Lisa; Daugherty, Alan (2013). "Differential Effects of Dietary Sodium Concentrations on Blood Pressure and Atherosclerosis in Hypercholesterolemic Mice." *Journal of Nutritional Biochemistry*: Volume 24, pp. 49-53.
83. Charnigo, Richard; Fan, Qian; Bittel, Douglas; Dai, Hongying (2013). "Testing Unilateral versus Bilateral Normal Contamination." *Statistics and Probability Letters*: Volume 83, pp. 163-167.
84. Charnigo, Richard; Noar, Seth; Garnett, Chris; Crosby, Richard; Palmgreen, Philip; Zimmerman, Rick (2013). "Sensation Seeking and Impulsivity: Combined Associations with Risky Sexual Behavior in a Large Sample of Young Adults." *Journal of Sex Research*: Volume 50, pp. 480-488.
85. Crosby, Richard; Shrier, Lydia; Charnigo, Richard; Sanders, Stephanie; Graham, Cynthia; Milhausen, Robin; Yarber, William (2013). "Negative Perceptions About Condom Use in a Clinic Population: Comparisons by Gender, Race, and Age." *International Journal of STD and AIDS*: Volume 24, pp. 100-105.
86. Crosby, Richard; Charnigo, Richard (2013). "A Comparison of Condom Use Perceptions and Behaviors between Circumcised and Intact Men Attending STD Clinics in the United States." *International Journal of STD and AIDS*: Volume 24, pp. 175-178.
87. Whitbeck, M.; Charnigo, Richard; Khairy, P.; Ziada, K.; Bailey, A.; Zegarra, M.; Shah, J.; Morales, G.; Macaulay, T.; Sorrell, V.; Campbell, C.; Gurley, J.; Anaya, P.; Nasr, H.; Bai, R.; DiBiase, L.; Booth, D.; Jondeau, G.; Natale, A.; Roy, D.; Smyth, S.; Moliterno, D.; Elayi, C. (2013). "Increased Mortality among Patients Taking Digoxin - Analysis from the AFFIRM Study." *European Heart Journal*: Volume 34, pp. 1481-1488.
- This article was the subject of editorial comment.
88. Gross, A. Kendall; Dunn, Steven; Feola, David; Martin, Craig; Charnigo, Richard; Li, Zhenyu; Abdel-Latif, Ahmed; Smyth, Susan (2013). "Clopidogrel Treatment and the Incidence and Severity of Community Acquired Pneumonia in a Cohort Study and Meta-Analysis of Antiplatelet Therapy in Pneumonia and Critical Illness." *Journal of Thrombosis and Thrombolysis*: Volume 35, pp. 147-154.
89. Dunn, Steven; Steinhubl, Steven; Bauer, Deborah; Charnigo, Richard; Berger, Peter; Topol, Eric (2013). "Impact of Proton Pump Inhibitor Therapy on the Efficacy of Clopidogrel in the CAPRIE and CREDO Trials." *Journal of the American Heart Association*: Volume 2, Article 4564.
90. Charnigo, Richard; Zhou, Feng; Dai, Hongying (2013). "Contaminated Chi-Square Modeling and Large-Scale ANOVA Testing." *Journal of Biometrics and Biostatistics*: Volume 4, Article 157.
91. Dai, Hongying; Charnigo, Richard; Becker, Mara; Leeder, Steve; Motsinger-Reif, Alison (2013). "Epistasis Enriched Network and Risk Score Modeling of Continuous Multifactor Dimensionality Reduction." *BioData Mining*: Volume 6, Article 1.
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101. Lile, Joshua; Charnigo, Richard; Nader, Michael (2013). "The Relative Reinforcing Strength of Methamphetamine and D-Amphetamine in Monkeys Self-Administering Cocaine." *Behavioural Pharmacology*: Volume 24, pp. 482-485.
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103. Adams, Zachary; Milich, Richard; Lynam, Donald; Charnigo, Richard (2013). "Interactive Effects of Drinking History and Impulsivity on College Drinking." *Addictive Behaviors*: Volume 38, pp. 2860-2867.

104. Boivin, G.; Platt, K.; Corbett, J.; Reeves, J.; Hardy, A.; Elenes, E.; Charnigo, Richard; Hunter, S.; Pearson, Kevin (2013). "The Effects of a High-Fat Diet, Branched-Chain Amino Acids and Exercise on Female C57BL/6 Mouse Achilles Tendon Biomechanical Properties." *Bone and Joint Research*: Volume 2, pp. 186-192.
105. Chen, X.; Rateri, D.; Howatt, D.; Balakrishnan, A.; Moorleghen, J.; Morris, Andrew; Charnigo, Richard; Cassis, Lisa; Daugherty, Alan. "Amlodipine Reduces AngII-Induced Aortic Aneurysms and Atherosclerosis in Hypercholesterolemic Mice." *Public Library of Science One*: Volume 8, Article 81743.
106. Abner, Erin L.; Charnigo, Richard; Kryscio, Richard J. (2013). "Markov Chains and Semi-Markov Models in Time-to-Event Analysis." *Journal of Biometrics and Biostatistics*: Volume S1, Article e001.
107. Thompson, Katherine L.; Charnigo, Richard; Linnen, Catherine R. (2013). "Using Ancestral Information to Inform Analyses of Complex Data Sets." *Journal of Biometrics and Biostatistics*: Volume 4, Article e126.
108. Sekerka, Leslie; Godwin, Lindsey; Charnigo, Richard (to appear). "Motivating Managers to Develop their Moral Curiosity." *Journal of Management Development*.
109. Whitbeck, Matthew; Charnigo, Richard; Shah, J.; Morales, G.; Leung, S.; Fornwalt, B.; Bailey, A.; Ziada, K.; Sorrell, V.; Zegarra, M.; Thompson, J.; Hosn, N.; Campbell, C.; Gurley, J.; Anaya, P.; Booth, D.; DiBiase, L.; Natale, A.; Smyth, Susan; Moliterno, David; Elayi, Claude (to appear). "QRS Duration Predicts Death and Hospitalization among Patients with Atrial Fibrillation Irrespective of Heart Failure: Evidence from the AFFIRM Study." *EP Europace*.
110. Crosby, Richard; Milhausen, Robin; Graham, Cynthia; Yarber, William; Sanders, Stephanie; Charnigo, Richard; Shrier, Lydia (to appear). "Likelihood of Condom Use when STDs are Suspected: Results from a Clinic Sample." *Health Education and Behavior*.
111. Wu, Tao; Vander Kooi, Craig; Huang, Cai; Shah, Pritom; Charnigo, Richard; Smyth, Susan; Morris, Andrew (to appear). "Integrin-Mediated Cell Surface Recruitment of Autotaxin Promotes Directional Cell Migration." *The FASEB Journal*.
112. Dai, Hongying; Charnigo, Richard (to appear). "D_CDF Test of Negative Log Transformed P-Values with Application to Genetic Pathway Analysis." *Statistics and its Interface*.

Presentations

- "Flourishing or Floundering? Relief Pitching in Major League Baseball"
 1. Case Western Reserve University: Statistics Department colloquium (November 1999)
 2. Case Western Reserve University: "Statistics in American Daily Life" (March 2000)
 3. American Statistical Association: Cleveland chapter meeting (June 2000)
 4. Society for American Baseball Research: Cleveland chapter meeting (July 2000)
- "Testing for Homogeneity in Mixture Distributions via the L^2 Distance Between Competing Models"
 1. Case Western Reserve University: Workshop on Developments and Challenges in Mixture Models (June 2002 – contributed poster)
 2. Purdue University: International Symposium on Statistics (June 2003 – invited)
 3. American Statistical Association: Joint Statistical Meetings (August 2003 – contributed)

- “A Semi-Local Paradigm for Wavelet Denoising”
 1. University of Kentucky: Statistics Department colloquium (December 2002 – invited)
 2. Johns Hopkins University: Biostatistics Department colloquium (January 2003 – invited)
 3. Iowa State University: Statistics Department colloquium (January 2003 – invited)
 4. International Biometric Society: Spring meeting of the Eastern North American Region (April 2003 – contributed)
- “Testing for Homogeneity in Discrete Mixtures”

American Statistical Association: Joint Statistical Meetings (August 2004 – contributed)
- “On a Flexible Information Criterion for Order Selection in Semiparametric Mixture Models”
 1. University of South Alabama: Mathematics and Statistics Department colloquium (November 2004 – invited)
 2. International Biometric Society: Spring meeting of the Eastern North American Region (March 2005 – contributed)
 3. Interface and Classification Society of North America: Joint annual meeting (June 2005 – invited)
 4. American Statistical Association: Joint Statistical Meetings (August 2005 – invited)
- “Local Analytic Curve Estimation”
 1. American Statistical Association: Joint Statistical Meetings (August 2006 – contributed)
 2. Case Western Reserve University: Statistics Department colloquium (October 2007 – invited)
- “Thinking Outside the Curve: Revisiting Birthweight Distribution”
 1. American Statistical Association: Kentucky chapter meeting (October 2006 – invited)
 2. American Statistical Association: Joint Statistical Meetings (August 2007 – contributed)
 3. Indiana University: Statistics Department colloquium (April 2008 – invited)
 4. University of Cincinnati: Division of Epidemiology and Biostatistics colloquium (May 2008 – invited)
- “Inferences in Contaminated Density Models with Applications to Microarray Data Analysis”
 1. University of Alabama at Birmingham: Statistical Genetics Section colloquium (March 2007 – invited)
- “A Generalized CP Criterion for Evaluating Derivative Estimates”
 1. American Statistical Association: Joint Statistical Meetings (August 2008 – contributed)
- “On Estimating Quantitative Features of Nanoparticles”
 1. International Chinese Statistical Association: Applied Statistics Symposium (June 2009 – invited)
- “Nonparametric Derivative Estimation and Posterior Probabilities for Nanoparticle Characteristics”
 1. American Statistical Association: Joint Statistical Meetings (August 2009 – contributed)
 2. Ohio State University: Conference on Nonparametric Statistics and Statistical Learning (May 2010 – contributed)
 3. International Chinese Statistical Association: Applied Statistics Symposium (June 2010 – contributed)
- “The Doubly Contaminated Normal Model and Its Application to Microarray Data Analysis”
 1. American Statistical Association: Joint Statistical Meetings (August 2011 – contributed)
 2. Cincinnati Children’s Hospital: Division of Biostatistics and Epidemiology seminar (September 2011 - invited)
- “Inference for the Bilaterally Contaminated Normal Model with Nuisance Parameter”
 1. American Statistical Association: Joint Statistical Meetings (July 2012 – contributed)
- “Risk Score Modeling of Multiple Gene to Gene Interactions using Aggregated-Multifactor Dimensionality Reduction”
 1. Pacific Institute for the Mathematical Sciences: High Dimensional Data Analysis Workshop (May 2013 – invited)

- “Contaminated Chi-Square Modeling and Large-Scale ANOVA Testing”
 1. OMICS Publishing Group: Biometrics 2013 (June 2013 – invited)
- “Derivatives of Raman Spectra for Breast Cancer Diagnosis”
 1. American Statistical Association: Joint Statistical Meetings (August 2013 – contributed)
- “A Multivariate Generalized C_p and Surface Estimation”
 1. University of Louisville: Bioinformatics and Biostatistics Department colloquium (November 2013 – invited)

External Funding

1. 1R01ES023470-01 Zhou (PI) 09/26/13 - 06/30/18; \$330,000
 NIH/NIEHS (0.3 months AY 2013-2014)
 ENDOCRINE DISRUPTOR MEDIATED ACTIVATION OF PXR CAUSES DYSLIPIDEMIA
 The goal of this project is to investigate a novel mechanism linking endocrine disrupting chemical (EDC) exposure and hyperlipidemia.
 Role: Co-Investigator

2. 1R01DK100892-01 Graf (PI) 09/20/13 - 08/31/17; \$380,000
 NIH (0.3 months AY 2013-2014)
 THE ROLE OF HEPATIC INSULIN RESISTANCE ON SR-BI DEPENDENT HDL CHOLESTEROL UPTAKE AND METABOLISM
 The overall objective of this proposal is to examine the extent to which impaired insulin signaling alters HDL-mediated reverse cholesterol transport (RCT).
 Role: Co-Investigator

3. ISSBRIL0171 Smyth (PI) 4/23/13 - 10/30/14; \$640,000
 AstraZeneca Pharmaceuticals (0.5 months AY 2013-2014)
 TARGETING PLATELETS IN PNEUMONIA
 This human clinical study will assess the effects of Brilinta on platelet function among patients with pneumonia.
 Role: Co-Investigator

4. 1R01HL111040-01A1 Bruemmer (PI) 9/27/12 - 6/30/16; \$1.5 million
 NIH/NHLBI (0.2 months AY 2013-2014)
 EPIGENETIC REGULATION OF INFLAMMATORY GENE EXPRESSION BY TELOMERASE
 This application will investigate novel mechanisms that control the activation of inflammation during atherosclerosis formation. The results of these studies may ultimately characterize novel pathways contributing to vascular diseases and lead to new therapeutic opportunities.
 Role: Co-Investigator

5. 1DP5OD012132-01 Fornwalt (PI) 9/25/12 - 8/31/17; \$2.0 million
 NIH/Office of the Director (0.3 months AY 2013-2014)
 EXPLORING THE ROLE OF DYSSYNCHRONY IN PEDIATRIC HEART DISEASE WITH MRI
 The long-term goal of this research program is to address the problem of pediatric heart failure by adapting a relatively new, highly successful therapy for adult heart failure called cardiac resynchronization therapy into a treatment option to improve the health of children with heart failure.
 Role: Co-Investigator

6. 2P50DA005312-22 Bardo (PI) 7/15/12 - 6/30/17; \$7.1 million
 NIH/NIDA (1.4 months AY 2013-2014)
 DRUG ABUSE PREVENTION - A LIFECOURSE PERSPECTIVE
 This project entails evaluations of school-based, curriculum-driven prevention programs with the evaluation of a comprehensive prevention program featuring both universal and selective high sensation value components.
 Role: Director of Statistics and Psychometrics Core
7. Lorch (PI) 3/1/12 – 6/30/15, \$1.5 million
 Institute of Education Sciences (0.1 months AY 2013-2014)
 A NARRATIVE COMPREHENSION INTERVENTION FOR ELEMENTARY SCHOOL CHILDREN AT-RISK FOR ATTENTION-DEFICIT HYPERACTIVITY DISORDER
 Children with ADHD often fall behind their comparison peers in narrative comprehension ability due to deficits in story domains that are important for comprehension; the purpose of the proposed project is to develop a supplemental afterschool intervention for 2nd and 3rd grade children at-risk for ADHD.
 Role: Co-Investigator
8. 5R01MH092226-02 Crosby (PI) 8/1/11 - 5/31/16; \$2.9 million
 NIH/NIMH (0.9 months AY 2013-2014)
 A CLINIC-BASED, SAFER SEX PROGRAM FOR YOUNG AFRICAN AMERICAN MEN WHO HAVE SEX WITH MEN
 The proposed efficacy trial will test a brief, clinic-based HIV/STD prevention program adapted specifically for young African American MSM. This program is based on a CDC-classified Evidence-Based Intervention known as Focus on the Future. The trial is designed with three follow-up assessments and uses biomarker outcomes as well as a novel method of collecting self-reported outcomes.
 Role: Co-Investigator
9. CTSA 1U54RR031263-01A1 Kern (PI) 7/1/11 - 6/30/16; \$20 million
 NIH (0.9 months AY 2013-2014)
 KENTUCKY CENTER FOR CLINICAL AND TRANSLATIONAL SCIENCE
 The University of Kentucky Center for Clinical and Translational Science is dedicated to growing the clinical and translational science research teams of the future, to providing the infrastructure needed to foster collaborations between basic and clinical scientists to facilitate research translation, and to enhancing outreach pathways to confront chronic health issues in rural Appalachia.
 Role: Program Faculty, Biostatistics
10. ISSCRES0043 Smyth (PI) 5/2/11 - 4/30/14; \$100,000
 AstraZeneca Pharmaceuticals (0.1 months AY 2013-2014)
 EARLY USE OF ROSUVASTATIN IN ACUTE CORONARY SYNDROMES: TARGETING PLATELET-LEUKOCYTE INTERACTIONS
 This human clinical study will assess the effects of Crestor, a lipid lowering therapy, on platelet function and inflammatory biomarkers among patients with acute coronary syndromes.
 Role: Co-Investigator
11. 1R21HD068844-01 Swanson (PI) 5/1/11 - 4/30/14; \$190,000
 NIH/CHHD (0.4 months AY 2013-2014)
 COMBATING DISPARITIES IN PRODUCE CONSUMPTION: AN APPALACHIAN FARM TO SCHOOL INTERVENTION
 Located in rural Appalachian Kentucky, a region with low fruit and vegetable intake and high rates of diet related diseases, the proposed project examines the feasibility of using a farm to school program, which provides locally-raised produce to the school cafeteria, as a health intervention.
 Role: Co-Investigator

12. 1R01MH083621-01 Crosby (PI) 9/30/08 – 5/31/14; \$1.8 million
 NIH/NIMH (0.5 months AY 2013-2014)
 A BRIEF, CLINIC-BASED HIV PREVENTION PROGRAM FOR AFRICAN AMERICAN TEEN MALES

This study will test the efficacy of a brief, clinic-based intervention to reduce STI incidence among African American teens (15 to 20 years old).

Role: Co-Investigator

13. 5R01DA025605-04 Lile (PI) 9/15/08 – 7/31/14; \$1.4 million
 NIH/NIDA (0.2 months AY 2013-2014)
 GABA DRUGS FOR CANNABIS-USE DISORDERS: INITIAL MECHANISTIC STUDIES IN HUMANS
 Currently there is no effective pharmacological treatment for cannabis-use disorders. The experiments proposed here represent the initial step of evaluating GABAergic drugs as potential pharmacotherapies.

Role: Statistician

14. 2P20GM103527-06 Cassis (PI) 9/08/08 – 7/31/18; \$12.7 million
 NIH/NCRR (0.9 months AY 2013-2014)
 CENTER OF RESEARCH IN OBESITY AND CARDIOVASCULAR DISEASE

The objective of this Center is to identify mechanisms linking the epidemic of obesity to the high incidence of cardiovascular diseases in the obese population and to develop promising junior project investigators.

Role: Mentor to junior project investigators

External Funding (completed)

15. W911NF-12-1-0422 Mod 1 Charnigo (PI) 8/15/12 - 7/31/13, \$50,000
 ARO/Probability and Statistics
 ADVANCES IN MULTIVARIATE NONPARAMETRIC REGRESSION WITH APPLICATION TO NANOSCALE-GAP THERMOPHOTOVOLTAIC POWER CONVERSION

This project will develop new statistical methods and theory for multivariate nonparametric regression, along with a new analytic model for near-field emission and absorption by a single nanoparticle on a surface. These developments will be used to establish a framework for characterizing nanoparticles nonintrusively and in real time on properties that influence the near-field thermal spectrum in a nanoscale-gap thermophotovoltaic apparatus.

Role: Principal Investigator

16. DMS-0706857 Charnigo (PI) 8/01/07 – 7/31/11, \$250,000
 NSF/DMS
 ESTIMATION OF ANALYTIC SURFACES WITH APPLICATIONS TO NANOPARTICLE CHARACTERIZATION VIA SURFACE WAVES

This project advances the statistical field of functional data analysis by rigorously developing a new compound estimation paradigm for simultaneously estimating a mean response and several of its derivatives from noisy data.

Role: Principal Investigator

17. Charnigo (PI) 6/01/07 – 6/30/07, \$2500
 Naval Postgraduate School
 PROFESSIONAL MORAL COURAGE AND MORAL DECISION MAKING

This project involves the analysis of organizational behavior data pertaining to the Ethics in Action Research and Education program, with a particular focus on professional moral courage.

Role: Principal Investigator

18. Charnigo (PI) 7/01/06 – 6/30/07, \$8000
 Naval Postgraduate School
 CONTRACT FOR STATISTICAL CONSULTING
 This project involves the analysis of organizational behavior data pertaining to the Ethics in Action Research and Education program, with a particular focus on curiosity and desired moral approbation.
 Role: Principal Investigator
19. Charnigo (PI) 3/01/05 – 8/31/05, \$5700
 Accumetrics, Inc.
 CONTRACT FOR STATISTICAL CONSULTING
 This project involved the analysis of clinical data to ascertain variability in response to clopidogrel.
 Role: Principal Investigator
20. Dearinger (PI) 7/1/12 - 12/31/13; \$73,000
 Kentucky Public Health Association
 ASSESSING AND IMPROVING CULTURAL AND LINGUISTIC COMPETENCY IN LOCAL HEALTH DEPARTMENTS
 This project will analyze data from the National Association of County and City Health Officials 2010 Profile of Local Health Departments, the Culturally and Linguistically Appropriate Services instrument, and the United States Census.
 Role: Co-Investigator
21. Dearinger (PI) 3/01/10 – 2/29/12, \$120,000
 KY Public Health Association
 COMMUNITY OUTREACH AND CHANGE FOR DIABETES MANAGEMENT
 The Kentucky Public Health Research Network will implement a systems-based quality improvement (QI) program, collect pre and post intervention data on the QI process, and analyze data for presentation at regional and national public health meetings.
 Role: Statistical Consultant
22. 1R01HL091924-01A1 Bruemmer (PI) 9/01/09 – 8/31/11, \$830,000
 NIH/AICS
 TELOMERASE IN INFLAMMATION AND ATHEROSCLEROSIS
 This study will test the hypothesis that telomerase promotes inflammatory gene expression in macrophages through epigenetic chromatin modifications and contributes to the development of atherosclerosis.
 Role: Co-Investigator
23. 5R01AA016166-04 Smith (PI) 3/10/08 – 2/28/13, \$630,000
 NIH/NIAAA
 DEVELOPMENTAL TRANSITIONS AND RISK FOR ALCOHOL USE
 This research will help us understand how the transition into adolescence can leave some children at risk for beginning to engage in risky behaviors. It will highlight the importance of emotion for some adolescents' risky behaviors, and it will suggest mood-based interventions that might reduce risk.
 Role: Statistical Consultant
24. 1 R21 DA023049-01 Martin (PI) 5/10/07 – 6/30/11, \$400,000
 NIH/NIDA
 MODAFINIL AND SMOKING CESSATION
 This project is a Phase II clinical trial exploring the efficacy of modafinil as a smoking cessation aid. If shown to be effective, modafinil could be added to the current pharmacotherapies for smoking cessation and may have particular benefit for female smokers for whom weight gain is a significant deterrent to smoking cessation.
 Role: Co-Investigator

25. Scutchfield (PI) 3/01/07 – 2/29/08, \$110,000
 National Network of Public Health Institutes
 NPHPSP DATA MINING
 This project seeks to identify factors that predict whether a public health department will excel in each of the ten essential public health services.
 Role: Statistical Consultant
26. 1K23HD050581-01A1 Reynolds (PI) 9/27/06 – 8/31/11, \$540,000
 NIH/CHHD
 CERVICAL (NECK) AUSCULTATION AND DEVELOPMENTAL OUTCOMES
 This project is designed to relate cervical auscultation data acquired through digital signal processing technology (in particular, measurements of swallow-associated sounds during early rhythmic suckle feeding) to long-term neurologic and developmental outcomes.
 Role: Statistical Consultant
27. 1R01AI068119-01A1 Crosby (PI) 6/15/06 – 5/31/11, \$2.9 million
 NIH/BSPH
 DO CONDOMS PROTECT FROM NON-VIRAL SEXUALLY TRANSMITTED INFECTIONS?
 This project entails assessing condom effectiveness against chlamydia, trichomoniasis, and gonorrhea with particular attention to the moderating effects of gender and the losses in protective value associated with irregular and incorrect usage.
 Role: Co-Investigator
28. 1P01HL080100-01A1 Daugherty (PI) 4/08/06 – 3/31/11, \$8.6 million
 NIH/HLBP
 MECHANISMS OF ABDOMINAL AORTIC ANEURYSM FORMATION
 This project is designed to provide mechanistic insight into the mechanisms involved in the initiation and propagation of abdominal aortic aneurysms.
 Role: Administrative Core
29. 1R21MH066682-01A1 Crosby (PI) 4/01/03 – 3/31/07, \$450,000
 NIH/NIMH
 PROMOTING HIV RISK REDUCTION IN AFRICAN AMERICAN MEN
 The goal of this study is to determine if a brief, clinic-based, intervention will enhance condom use among African American men diagnosed with an STD.
 Role: Statistical Consultant
30. 5R01MH060104-04 Lynam (PI) 9/30/00 – 8/31/05, \$790,000
 NIH/NIMH
 ADULT ANTISOCIAL OUTCOMES OF PSYCHOPATHIC CHILDREN
 The goals of this project included ascertaining the stability of psychopathy across development, the reliability of its assessment, and its value in predicting delinquency.
 Role: Statistical Consultant

Internal Funding (active)

Since 8/15/04, I have received support from the Division of Cardiology in the Department of Internal Medicine (currently 30% of twelve-month salary; grant #28 above was subsumed into this support; salary is received during both the academic year and the summer, not necessarily at equal rates). My responsibilities include collaborations and consultations with faculty, fellows, and research staff in Cardiology.

Teaching and Advising

Teaching at the University of Kentucky

- STA 524, Probability (Fall 2013)
This is a graduate course for students in disciplines outside Statistics; many undergraduates enroll as well. Topics include unconditional and conditional probabilities, discrete and continuous random variables, joint and marginal probabilities, and sampling distributions.
- STA 606, Theory of Statistical Inference I (Spring 2013)
This is a graduate course directed exclusively to students in Statistics. Topics include convergence concepts, methods for finding point and interval estimators, methods for finding hypothesis tests, sufficiency, and evaluation of point estimators.
- CPH 739, Independent Study in Biostatistics: Raman Spectroscopy, Stacking, and Boosting (Spring 2013)
I supervised Jing Guo, a Ph.D. Candidate in Epidemiology and Biostatistics, on work that will form the basis for part of her dissertation on nonparametric regression and pattern recognition.
- STA 715, Readings in Statistics: Mixture Modeling and Genetic Data Analysis (Fall 2012)
I supervised Feng Zhou, a Ph.D. Candidate in Statistics, on work that will form the basis for part of her dissertation on the contaminated chi-square model and its applications to microarray data analysis.
- STA 715, Readings in Statistics: Multivariate Nonparametric Regression (Spring 2012)
I supervised Limin Feng, a Ph.D. Candidate in Statistics, on work that will form the basis for part of her dissertation on compound estimation with multiple covariates and Steinization in nonparametric regression.
- STA 715, Readings in Statistics: Mixture and Contamination Modeling (Spring 2012, Spring 2013)
I supervised Qian Fan, a Ph.D. Candidate in Statistics, on work that will form the basis for part of her dissertation on the bilaterally contaminated normal model and its applications to microarray data analysis.
- STA 570, Basic Statistical Analysis (Spring 2012)
This is a graduate course that addresses point and interval estimation, hypothesis testing, simple linear regression, and other topics relevant to students engaging in research.
- CPH 767, Dissertation Residency Credit (Fall 2011, Spring 2012)
Students in the Ph.D. program in Epidemiology and Biostatistics enroll in this course while completing their dissertation research. The instructor of record is the Director of Graduate Studies for the Ph.D. program in Epidemiology and Biostatistics, a role I fulfilled from 2009 to 2012.
- BST 675, Biometrics I (Fall 2010, Fall 2011)
This is a graduate course directed predominantly to students pursuing a Ph.D. in Epidemiology and Biostatistics. Topics include unconditional and conditional probabilities, discrete and continuous random variables, joint and marginal probabilities, and sampling distributions.
- CPH 786, Doctoral Seminar (Spring 2010, Spring 2012)
This is a graduate course directed solely to students pursuing a Ph.D. in Epidemiology and Biostatistics. The course consists of colloquia-style activities that help students develop professionally and expose them to the interface between epidemiologic and biostatistical research.

- BST 676, Biometrics II (Spring 2010, Spring 2011)
This is a graduate course directed predominantly to students pursuing a Ph.D. in Epidemiology and Biostatistics. Topics include concepts from large sample theory, maximum likelihood and other methods for point estimation, best unbiased point estimation, likelihood ratio and other methods for hypothesis testing, uniformly most powerful hypothesis tests, interval estimation via inversion and pivoting, and uniformly most accurate interval estimation.
- STA 623, Theory of Probability (Fall 2009, Fall 2010, Fall 2011, Fall 2012, Fall 2013)
This is a graduate course directed exclusively to students in Statistics. Topics include unconditional and conditional probabilities, random variables, expected values and higher order moments, commonly encountered parametric families, joint and marginal probabilities, and random sampling.
- STA 715, Readings in Statistics: Nonparametric Regression (Spring 2009)
I supervised Benjamin Hall, a Ph.D. Candidate in Statistics, on work that formed the basis for part of his dissertation on simultaneous confidence bands for mean response functions and their derivatives.
- STA 525, Introduction to Statistical Inference (Spring 2008)
This is a graduate course directed to students in disciplines other than Statistics. Topics include maximum likelihood estimation, likelihood ratio tests, sufficiency and completeness, best unbiased estimators, uniformly most powerful tests, and applications of quadratic forms.
- CPH 931, Professional Seminar in Biostatistics (Spring 2007 as co-instructor with Richard Kryscio, Fall 2008 and Fall 2009 as sole instructor)
This advanced course for Dr.P.H. students introduces sophisticated methods (e.g., weighted least squares, robust regression, ridge regression, nonparametric regression, polytomous regression, proportional odds regression, Poisson regression, and negative binomial regression) that can be employed when the methods introduced in CPH 930 do not apply.
- CPH 636, Data Mining in Public Health (Spring 2006, Spring 2008, Spring 2009)
This is a graduate course whose topics include linear regression, logistic regression, discriminant analysis, regression and classification trees, neural networks, nearest neighbors methodology, factor analysis, and K-means clustering.
- STA 601, Theory of Statistical Inference II (Spring 2006, Spring 2007)
This is a graduate course directed exclusively to students in Statistics. Topics include best unbiased estimators, uniformly most powerful tests, uniformly most accurate confidence sets, and standard asymptotic results for maximum likelihood estimators and likelihood ratio test statistics.
- STA 503, Introduction to Statistical Methods (Fall 2005, Fall 2006)
This is a graduate course directed exclusively to students in Statistics. Topics include point and interval estimation, hypothesis testing, linear regression, logistic regression, and proportional hazards regression.
- CPH 739, Independent Study in Biostatistics (Fall 2005)
I supervised Lorie Chesnut, an M.P.H. candidate concentrating in Epidemiology, on work that led to manuscripts #38, #39, and #95 above.
- STA 624, Applied Stochastic Processes (Spring 2005)
This is a graduate course in stochastic processes directed primarily to students in Statistics but that draws students from some other departments as well. Topics include Markov chains in discrete time, Poisson processes, Markov chains in continuous time, and renewal processes.
- STA 715, Readings in Statistics: Topics in Mixture Modeling (Spring 2005)
I supervised Hongying Dai, a Ph.D. Candidate in Statistics, on work that formed the basis for part of her dissertation on inference in contamination models.

- CPH 739, Independent Study in Biostatistics (Summer 2004)
I supervised Julie Tackett, an M.P.H. candidate concentrating in Epidemiology, on work that led to manuscript #8 above.
- CPH 930, Advanced Biostatistical Methods in Public Health (Spring 2004, Fall 2004, Spring 2005, Fall 2006)
This introductory course for Dr.P.H. students addresses linear regression, logistic regression, proportional hazards regression, and other topics relevant to students in public health.
- CPH 630/STA 681, Biostatistics II (Spring 2004, Fall 2004, Spring 2005 – taught concurrently with CPH 930)
This sequel to Biostatistics I addresses linear regression, logistic regression, proportional hazards regression, and other topics relevant to students in public health.
- STA 580, Biostatistics I (Fall 2003, Spring 2004, Fall 2007, Fall 2008, Spring 2009, Spring 2011, Spring 2013)
This is a graduate course that addresses point and interval estimation, hypothesis testing, simple linear regression, and other topics relevant to students in public health.

Teaching at Case Western Reserve University

- STAT 312, Statistics for Engineering and Science (Fall 2001, Fall 2002)
- MATH 126, Mathematics II (Spring 1999)
- MATH 121, Calculus for Science and Engineering I (Fall 1997, Spring 1998, Fall 1998)

Guest lectures on biostatistics given in other courses at the University of Kentucky

- BST 762, Longitudinal Data Analysis (Spring 2012)
- EPI 715, Research Methods in Epidemiology and Biostatistics (Spring 2012)
- CPH 778 Section 402, Current Topics in Public Health (Fall 2011)
- HON 121, Honors Seminar on Emerging Technology (twice in Fall 2008)
- OBI 650, Oral Biology for Postgraduate Dental Students (Fall 2004, Fall 2005, Fall 2006)
- MED 825, Introduction to Clinical Research (Spring 2004)

Course development at the University of Kentucky

- CPH 636, Data Mining in Public Health (first offered in Spring 2006)
This course, which Marta Mendiondo and I developed, addresses statistical techniques for and practical issues associated with the exploration of large public health data sets, the development of models from such data sets, and the effective communication of one's findings.
- BST 675, Biometrics I (first offered in Fall 2009)
This course, which Heather Bush and I developed with input from our colleagues in Biostatistics, introduces probability, discrete random variables, continuous random variables, and sampling distributions.
- BST 676, Biometrics II (first offered in Spring 2010)
This course, which Heather Bush and I developed with input from our colleagues in Biostatistics, introduces techniques for constructing and evaluating point estimators, hypothesis testing procedures, and interval estimators.
- BST 764, Applied Statistical Modeling for Medicine and Public Health (first offered in Fall 2011)
This course, which I developed with input from colleagues in Biostatistics, introduces finite mixture models, nonparametric regression models, covariance-based models, and stochastic models.

Advising at the University of Kentucky: current students

1. Dissertation advisor for Qian Fan, Ph.D. Candidate (Statistics)
2. Dissertation advisor for Feng Zhou, Ph.D. Candidate (Statistics)
3. Dissertation advisor for Meng Qi, Ph.D. Candidate (Statistics)
4. Dissertation advisor (co-advisor Bin Huang) for Jing Guo, Ph.D. Candidate (Epidemiology and Biostatistics)
5. Dissertation co-advisor (advisor Wayne Sanderson) for David Bardach, Ph.D. Candidate (Epidemiology and Biostatistics)
6. Dissertation committee member for Carolyn Pearson, Ph.D. Candidate (Psychology)
7. Capstone committee member for Tyler McGrady, M.P.H. Candidate (Epidemiology)
8. Dissertation committee member for Marilyn Campbell, Ph.D. Candidate (Exercise Science)
9. Dissertation committee member for Rachel Vickers, Ph.D. Candidate (Epidemiology and Biostatistics)
10. Dissertation committee member for Michael Singleton, Ph.D. Candidate (Epidemiology and Biostatistics)
11. Dissertation committee member for Yinglei Li, Ph.D. Candidate (Statistics)
12. Dissertation committee member for Alison Kaiser, Ph.D. Candidate (Psychology)
13. Capstone committee member for April Harris, M.P.H. Candidate (Health Services Management)
14. Dissertation committee member for Alireza Zeinali, Ph.D. Candidate (Civil Engineering)
15. Capstone committee member for David Grimes, M.P.H. Candidate (Health Behavior)

Advising at the University of Kentucky: former students

16. Dissertation advisor for Limin Feng (Ph.D., Statistics, August 2013)
17. Capstone advisor for Wei Deng (M.P.H., Biostatistics, August 2011)
18. Dissertation advisor for Benjamin Hall (Ph.D., Statistics, May 2010)
Mr. Hall won one of the two Statistics Department's 2010 R. L. Anderson Awards for Research.
19. Capstone advisor for Alice Smith (M.P.H., Biostatistics, December 2007)
20. Dissertation advisor (co-advisor Kert Viele) for Hongying Dai (Ph.D., Statistics, August 2006)
Ms. Dai won the Statistics Department's 2006 R. L. Anderson Award and the 2006 student paper competition of the American Statistical Association's Biopharmaceutical Section. (The paper was an early version of manuscript #12 above.)
21. Dissertation committee member for Amanda Wiggins (Ph.D., Epidemiology and Biostatistics, December 2013)
22. Capstone committee member for Sehee Rim (M.P.H., Epidemiology, August 2013)
23. Capstone committee member for Rachel Vickers (M.P.H., Health Services Management, August 2012)
24. Dissertation committee member for Joyce Robl (Ph.D., Health Promotion, May 2012)
25. Capstone committee member for Robin Pendley (Dr.P.H., Health Services Management, May 2012)
26. Capstone committee member for Angela Carman (Dr.P.H., Health Services Management, May 2012)
27. Capstone committee member for Zhen Huang (M.P.H., Biostatistics, December 2011)
28. Capstone committee member for Maria Gomez (Dr.P.H., Health Services Management, August 2011)
29. Dissertation committee member for Zack Adams (Ph.D., Psychology, August 2011)
30. Capstone committee member for Paula Arnett (Dr.P.H., Health Services Management, August 2011)
31. Dissertation committee member for Ursula Bailey (Ph.D., Psychology, August 2011)
32. Dissertation committee member for Angela Schoergendorfer (Ph.D., Statistics, August 2011)
33. Capstone committee member for Claude Dadjé (M.P.H., Health Services Management, May 2011)
34. Dissertation committee member for Yanling Hu (Ph.D., Statistics, May 2011)
35. Capstone committee member for Charlotte Baker (Dr.P.H., Epidemiology, May 2011)
36. Capstone committee member for Keisha Houston (Dr.P.H., Epidemiology, May 2011)
37. Capstone committee member for Rick Ingram (Dr.P.H., Health Services Management, December 2010)
38. Capstone committee member for Donna Schmutzler (Dr.P.H., Health Services Management, December 2010)
39. Capstone committee member for Nicholas Hines (M.P.H., Health Behavior, August 2010)
40. Capstone committee member for Ariel Langevin (M.P.H., Health Services Management, August 2010)
41. Capstone committee member for Jennifer Marcum (Dr.P.H., Epidemiology, May 2010)
42. Capstone committee member for Patricia Eilerman (M.P.H., Epidemiology, May 2010)
43. Capstone committee member for Naomi Hudson (Dr.P.H., Epidemiology and Environmental Health, May 2010)

44. Capstone committee member for April Young (M.P.H., Health Behavior and Epidemiology, May 2010)
45. Capstone committee member for Alison Glassman (M.P.H., Health Behavior, May 2010)
46. Dissertation committee member for Bill Barton (Ph.D., Statistics, May 2010)
47. Capstone committee member for Radhika Katragunta (M.P.H., Health Services Management, August 2009)
48. Capstone committee member for Ashley Tillman (M.P.H., Health Behavior, August 2009)
49. Outside examiner for David Link (Ph.D., Chemistry, August 2009)
50. Capstone committee member for Jeff Tritle (M.P.H., Epidemiology, May 2009)
51. Capstone committee member for Srishti Shrestha (M.P.H., Epidemiology, May 2009)
52. Outside examiner for Jie Wang (Ph.D., Computer Science, December 2008)
53. Dissertation committee member for Christopher Berger (Ph.D., Exercise Science, August 2008)
54. Capstone committee member for Ashley Brooks (M.P.H., Health Services Management, August 2008)
55. Capstone committee member for Littron Cole (M.P.H., Health Services Management, August 2008)
56. Capstone committee member for Sabrina Walsh (Dr.P.H., Biostatistics, August 2008)
57. Dissertation committee member for Matthew Hersh (Ph.D., Statistics, December 2007)
58. Dissertation committee member for Rhonda VanDyke (Ph.D., Statistics, December 2007)
59. Capstone committee member for Torrie Harris (Dr.P.H., Health Behavior, August 2007)
60. Capstone committee member for Leo Gayheart (M.P.H., Epidemiology, August 2007)
61. Dissertation committee member for Mark Cullum (Ph.D., Exercise Science, August 2007)
62. Outside examiner for Andrea Milam (Ph.D., Instruction and Administration, August 2007)
63. Capstone committee member for Lorie Chesnut (M.P.H., Epidemiology, December 2005)
Ms. Chesnut won Second Prize in a competition for best abstract at the Twelfth Annual Maternal Child and Health Epidemiology Conference. (The abstract and the talk that she gave were based on work initiated during her independent study with me.)
64. Capstone committee member for Matin Katirai (M.P.H., Epidemiology, August 2005)
65. Capstone committee member for Jenny Olges (M.P.H., Epidemiology, August 2005)
66. Capstone committee member for Judy Stivers (M.P.H., Epidemiology, August 2005)
67. Capstone committee member for Julie Tackett (M.P.H., Epidemiology, August 2005)
68. Capstone committee member for Elizabeth Masterson (M.P.H., Epidemiology, May 2005)
69. Capstone committee member for Sophie Zhang (M.P.H., Epidemiology, May 2005)

Supervision of Research Assistants at the University of Kentucky:

1. Patrick Kenkel, Undergraduate, supported by NSF grant DMS-0706857 (complete)
2. Leonard Gordon, Ph.D. Student in Epidemiology and Biostatistics, supported by the College of Public Health at UK (complete)
3. Limin Feng, Ph.D. Student in Statistics, supported by the College of Public Health at UK (complete)
4. Benjamin Hall, Ph.D. Student in Statistics, supported by NSF grant DMS-0706857 (complete)
5. Daniel Russell, Undergraduate, supported by NSF grant DMS-0706857 (complete)
6. David Bardach, Ph.D. Student in Epidemiology and Biostatistics, supported by the College of Public Health at UK (complete)
7. Limin Feng, Ph.D. Student in Statistics, supported by ARO grant W911NF-12-1-0422 Mod 1 (complete)
8. Lava Timsina, Ph.D. Student in Epidemiology and Biostatistics, supported by the College of Public Health at UK (complete)
9. Rachel Vickers, Ph.D. Student in Epidemiology and Biostatistics, supported by the College of Public Health at UK (complete)
10. Paul Ditterline, Ph.D. Student in Epidemiology and Biostatistics, supported by the Center for Drug Abuse Research Translation at UK (current)

Service

Professional (Journal of Biometrics and Biostatistics)

- Editor-in-Chief (2012-)
- Editorial Board (2010-2012)

Professional (American Statistical Association)

- President, Kentucky Chapter (2012-)

Professional (Collaborative Meetings)

- Invited Presenter at “Building a Consensus on the Assessment of Bleeding in Patients with Coronary Artery Disease” in April 2008, a Think Tank organized by the Duke Clinical Research Institute.

Professional (Conferences)

- Member of Organizing Committee for the Biostatistics 2014 conference.
- Member of Organizing Committee for and Chair of Keynote Sessions at the Biometrics 2013 conference.
- Chair of “Censored and Missing Data Analysis,” a Contributed Session at the June 2010 ICSA conference.
- Organizer and Chair of “Statistical Challenges in Measurement Error Models,” an Invited Session at the June 2009 ICSA conference.
- Chair of “To Mix or Not to Mix,” an Invited Session at the March 2005 ENAR conference.
- Organizer and Chair of “Mixture Modeling: Modern Approaches and Applications,” an Invited Session at the May 2004 Interface conference.

Professional (Refereeing for funding agencies)

- Proposal reviewer for Natural Sciences and Engineering Research Council of Canada (2013)

Professional (Refereeing for journals and books)

- *Biometrics* (2013)
- *The American Statistician* (twice in 2013)
- *Arteriosclerosis, Thrombosis, and Vascular Biology* (2013)
- *Computational Statistics* (twice in 2013)
- A chapter of the book *Ethics Training in Action* (twice in 2012)
- *Electronic Journal of Statistics* (2012)
- *Journal of Women’s Health Care* (2012)
- *Journal of Quantitative Spectroscopy and Radiative Transfer* (2011, twice in 2013)
- *NeuroImage* (twice in 2011)
- *Medical Decision Making* (2011)
- *Evaluation and the Health Professions* (2010)
- *Molecular Therapy* (2010)
- *Statistics and Probability Letters* (2009)
- *Annals of Statistics* (2008)
- *Statistica Sinica* (twice in 2007)
- *Canadian Journal of Statistics* (2006, 2007)
- *IEEE Transactions on Image Processing* (twice in 2006)
- *Journal of Statistical Planning and Inference* (2005, twice in 2006, 2008, twice in 2011)
- *Journal of the American Statistical Association* (2004, 2005, 2006, 2009, 2010)
- *Journal of Statistical Computation and Simulation* (2004)

Professional (Refereeing for other institutions)

- Doctoral thesis external reviewer for University of Alberta (2013)
- Faculty promotion external reviewer for Cleveland Clinic (2011)
- Faculty promotion external reviewer for Virginia Commonwealth University (2010)

Professional (Written educational and outreach material)

- Gelman, Andrew; Carlin, John; Stern, Hal; Charnigo, Richard (2000, but since updated). “Solutions to exercises from the book, *Bayesian Data Analysis*.” Available to instructors via <http://www.stat.columbia.edu/~gelman/book/>
- Charnigo, Richard (2001). “Solutions Manual for *Regression Analysis by Example*.” Available to instructors via <http://www.ilr.cornell.edu/~hadi/RABE/>
- Chesnut, Lorie; Charnigo, Richard; LoBianco, Tony (2006). “Perinatal Periods of Risk: Mapping Feto-Infant Mortality in Kentucky.” *Kentucky Epidemiologic News and Reports*: Volume 41, pp. 1 – 4.

Professional (Training and outreach)

- Talk on trajectory modeling for Quantitative Initiative in Policy and Social Research (2013)
- Talk on trajectory modeling for Center of Clinical and Translational Science (2013)
- Talk on trajectory modeling for CDART trainees (2013)
- Led part of review session for Preventive Medicine/Public Health residents at the University of Kentucky planning to take American Board of Preventive Medicine certification examination (2013)
- Talk on linear mixed modeling for Quantitative Initiative in Policy and Social Research (2013)
- Talk on linear mixed modeling for Center of Clinical and Translational Science (2013)
- Talk on linear mixed modeling for CDART trainees (2013)
- Talk on structural equation modeling to Applied Statistics Laboratory personnel (2012)
- Talk on generalized linear mixed modeling and group-based trajectory modeling for CDART trainees (2011)
- Talk on group-based trajectory modeling at CDART Research Forum (2011)
- Talk on analyzing narrow population data at the Annual Maternal and Child Health Epidemiology Conference (2010), materials available via <http://www.richardcharnigo.net/RE/index.html>
- Led part of review session for University of Kentucky and other students planning to take Certified in Public Health examination (2009, 2010, 2011, 2012, 2013)
- Presentation to students of Lafayette and Henry Clay High Schools in Fayette County on statistical thinking and applications (2009)
- Talk on analyzing rare event data at the Annual Meeting of the National Birth Defects Prevention Network (2009), materials available via <http://www.richardcharnigo.net/RE/index.html>
- Talk on analyzing rare event data at the Annual Maternal and Child Health Epidemiology Conference (2008), materials available via <http://www.richardcharnigo.net/RE/index.html>
- Talk on linear mixed modeling at the Workshop on Statistical Methods in Drug Abuse, which was held for a national audience at the University of Kentucky (2008)
- Guest lecture on statistical concepts for Dietetic Interns at the University of Kentucky (2007, 2009)
- Half-day seminar on logistic regression for Kentucky Department for Public Health personnel (2006)

University of Kentucky (University level)

- Health Care Colleges Student Code of Conduct Committee (2011-)
- University Senate Academic Programs Committee (2011-)
- University Senate (2011-)
- Faculty Associate, Center for Research on Violence Against Women (2010-)
- Advisory Board, Quantitative Initiative for Policy and Social Research (2010-)
- Director of Graduate Studies, Ph.D. in Epidemiology and Biostatistics (2009-2012)
- Health Care Colleges Council (2009-2011)

University of Kentucky (College level)

- College of Medicine M.D./Ph.D. Internal Advisory and Admissions Committee (2010-)
- College of Public Health Accreditation Midcourse Review Committee (2013-2014)
- Ph.D. in Epidemiology and Biostatistics Support Committee, Chair (2011-2012)
- Ph.D. in Epidemiology and Biostatistics Program Committee, Chair (2010-2012)
- Ph.D. in Epidemiology and Biostatistics Admissions Committee, Chair (2009-2012) and Member (2012-2013)
- College of Public Health Assessment and Evaluation Committee (2008-2011)
- Ph.D. in Epidemiology and Biostatistics Biostatistics Concepts Subexamination Committee, Chair (2010-2013) and Member (2013-2014)
- College of Public Health Faculty Council (2005-2009), Vice Chair (2005-2006)
- College of Public Health Ad-Hoc Associate Dean Committee (2007)
- College of Public Health Research Committee (2006-2007)
- College of Public Health Ad-Hoc Curriculum Committee (2006)
- College of Public Health (Staff) Employee of the Year Committee (2006)
- College of Public Health Academic Affairs Committee (2004-2006)
- Judge, College of Public Health Research Symposium (2004, 2006)

University of Kentucky (Department level)

- Statistics Department Graduate Studies Committee (2013-)
- Statistics Department Ph.D. Examination in Probability Committee (2013)
- Statistics Department M.S. Examination in Theory Committee (2010, 2011, 2012, 2013)
- Biostatistics Department Dr.P.H. Qualifying Examination Committee (2007-2008)
- Statistics Department Ad-Hoc M.S. Program Committee (2007-2008)
- Statistics Department Grants/Contracts Committee (2006-2010)
- Biostatistics Department Ad-Hoc Ph.D. Program Committee (2006-2008)
- Statistics Department M.S. Examination in Data Analysis Committee (2006, 2007)
- Statistics Department M.S. Examination in Probability Committee (2005, 2008, 2009)
- Biostatistics Department Dr.P.H. Core Principles Examination Committee (2004-2008)
- Statistics Department M.S. Examination in Inference Committee (2004, 2006, 2007)
- Statistics Department Meeting Recorder (2004-2005)
- Statistics Department Computing Committee (2003-2009)
- Statistics Department Picnic Committee (2003-2008)

Case Western Reserve University (Graduate Student Senate)

- President (2000-2002)
- Recording Secretary (1999-2000)
- Verhosek Fund Appeal Committee (2001-2002, 2003)
- Activities Committee (2000-2001, 2002)
- Senator (1999-2003)

Case Western Reserve University (University level)

- Presidential Search Committee (2001-2002)
- Faculty Senate General Assembly (2000-2002)
- Commencement Speaker Committee (2000-2001)
- Faculty Senate Graduate Studies Committee (1999-2001)
- University Circle Incorporated Parking and Security Committee (1999-2000)

Miscellaneous

Computing skills

- Proficient in Windows and Unix environments
- Extensive experience with R, S-plus, SAS, Enterprise Miner, and SPSS
- Familiarity with Fortran, Matlab, Mathematica, Maple, AMOS, and Lisrel

Other employment and community activities

- Juror, Fayette County KY (Summer 2012)
- Juror, Cuyahoga County OH (Summer 2001)
- Substitute keyboardist/vocalist, St. Gregory Parish in South Euclid, Ohio (Spring 2000)
- Proofreader, *The Best Kept Secrets of Parma: The Garden City* (Summer 1997)
- Regular keyboardist, St. Ladislav Parish in Westlake, Ohio (Summer 1990 to Fall 2002)
- Professional musician and piano teacher (as opportunities have arisen)

Awards/Honors

- Inducted into Delta Omega Honorary Society in Public Health (2011)
- Golden Apple Award (2010): teaching excellence, College of Public Health (University of Kentucky)
- 2000 Outstanding Scientists 2008/2009, International Biographical Centre
- Marquis Who's Who in the World (2008, 2009, 2010, 2011, 2012, 2013, 2014)
- Wethington Award (2008, 2009, 2010, 2011, 2012, 2013): College of Arts and Sciences (University of Kentucky)
- Nominated for Provost's Award for Outstanding Teaching (2008): University of Kentucky
- Marquis Who's Who in Science and Engineering (2008, 2011-2012)
- Marquis Who's Who in America (2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014)
- Wethington Award (2006, 2008, 2010, 2011, 2012, 2013): College of Public Health (University of Kentucky)
- Academic Keys Who's Who in Health Sciences Education (2006)
- John Schoff Millis Award (1997): best academic record, College of Arts and Sciences (Case Western Reserve University)
- Inducted into Phi Beta Kappa (1997)
- Max Morris Prize (1997) and Webster-Godman-Simon Award (1996): excellence in mathematics (Case Western Reserve University)
- National Merit Scholarship (1994-1995)
- Finalist, White House Commission of Presidential Scholars (1994)
- Rensselaer Medal (1993)