Yu Cheng

Curriculum Vitae

Department of Statistics, University of Pittsburgh   **Office number**: 412-648-1851
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EDUCATION

Ph.D.	Statistics, University of Wisconsin-Madison, 2006	
M.S.	Statistics, National University of Singapore, 2001	
B.S.	Statistics, University of Science and Technology of China, 1999	

RESEARCH INTERESTS

Dynamic treatment regimes and SMART
Disease classification
Risk evaluation and screening
Association and regression analysis of competing risks data
Classification and discriminant analysis
Adaptive design
Applications to psychiatric studies, COVID, and cystic fibrosis

EMPLOYMENT

09/2023-08/2026	Chair, Department of Statistics, University of Pittsburgh
09/2020-present	Full Professor, Department of Statistics, University of Pittsburgh
09/2022-08/2023	Acting Chair, Department of Statistics, University of Pittsburgh
09/2021-12/2021	Acting Chair, Department of Statistics, University of Pittsburgh
09/2013-08/2020	Associate Professor, Department of Statistics, University of Pittsburgh
04/2017-08/2018	Interim Chair, Department of Statistics, University of Pittsburgh
01/2016-03/2017	Graduate Director, Department of Statistics, University of Pittsburgh
05/2016-present	Professor and Associate Professor, secondary appointment, Department of Biostatistics, University of Pittsburgh
09/2006-08/2017	Associate Professor and Assistant Professor, joint appointment, Department of Psychiatry, University of Pittsburgh
09/2006-08/2013	Assistant Professor, Department of Statistics, University of Pittsburgh

HONORS AND AWARDS

American Statistical Association (ASA) Fellow, 2024

ASA Pittsburgh Chapter Statistician of the Year, 2020

Thesis advisees won the CORI New Investigator Scholarship (2018, 2019, 2020)

President, American Statistical Association Pittsburgh Chapter (2014-2015)

Thesis advisee won the ENAR Distinguished Student Paper Award (2012)

EDITORIAL ACTIVITIES

Associate Editor, *Lifetime Data Analysis*, 2021-present
Associate Editor, *Journal of Statistical Research*, 2015-present

PUBLICATIONS and MANUSCRIPTS
Peer Reviewed (asterisk indicates student advisee)

101. Yang, X.*, **Cheng, Y.**, Thall, P., Wahed, A. (2024) "A generalized outcome-adaptive sequential multiple assignment randomized trial design," *Biometrics*, 80(3).

100. Wang, B.*, **Cheng, Y.**, Levine, M.D. (2024) "Identification of Optimal Combined Moderators for Time to Relapse", *The Journal of Data Science*, 22, 469-485.

99. Wang, B.*, **Cheng, Y.**, Gail, M., Fine, J., Pfeiffer, R. (2024) "Predicting absolute risk for a person with missing risk factors," *Statistical Methods in Medical Research*, 33, 557-573.

98. Jouppi, R.J., Donofry, S.D., Call, C.C., **Cheng, Y.**, Kolko Conlon, R.P., Niemi, S., Levine, M.D. (2024) "Associations between Prenatal Loss of Control Eating and Cardiovascular Health during Pregnancy," *Health Psychology*, 43, 673-683.

97. Lyu, L.*, **Cheng, Y.**, Wahed, A. (2023) "Imputation-Based Q-Learning for Optimizing Dynamic Treatment Regimes with Right-Censored Survival Outcome," *Biometrics*, 79, 3676-3689.

96. Sun, T., **Cheng, Y.**, Ding, Y. (2023) "An Information Ratio based Goodness-of-fit Test for Copula Models on Censored Data," *Biometrics*, 79, 1713-1725.

95. Qu, Y.*, **Cheng, Y.** (2023) "Volume under the ROC Surface for High-Dimensional Independent Screening with Ordinal Competing Risk Outcomes," *Lifetime Data Analysis*, 29, 735–751.

94. Chiang Chiang, C., Fang, X., Hovarth Z., Cadiou, F., Urani, A., Poh, W., Narimatsu, H., **Cheng, Y.**, Dodick, D.W. (2023) "Simultaneous comparisons of 25 acute migraine medications based on 10 million users' self-reported records from a smartphone application," *Neurology*, 101, e2560-2570.

93. Wang, Z.*, Wang, Z.*, Lyu, L.*, **Cheng, Y.**, Seaberg, E.C., Molsberry, S.A., Ragin, A., Becker, J.T. (2023) "Dynamic Impairment Classification Through Arrayed Comparisons," *Statistics in Medicine*, 42, 52-67.

92. Dong, G.H., Hoaglin, D., Huang, B., Cui, Y., Wang, D.L., **Cheng, Y.**, Gamalo-Siebers, M., (2023) "The stratified win statistics (win ratio, win odds, and net benefit)," *Pharmaceutical Statistics*, 22, 748-756.

91. Magee, K.E., Qu, Y.*, **Cheng, Y.**, Hipwell, A.E., Levine, M.D. (2023) "The association between preconception loss of control over eating and depressive symptom trajectories from childhood through first pregnancy," *International Journal of Eating Disorders*, 56, 1814-1819.

90. Natacha, D.G., Qu, Y.*, **Cheng, Y.**, Emery, R.L., Kolko Conlon, R.P., Levine, M.D. (2023) "Trajectories of return to cigarette smoking up to 1 year postpartum among people who quit smoking during pregnancy," *Nicotine & Tobacco Research*, 25, 875-881.

89. Levine, M.D., Emery-Tavernier, R.L., Conlon R, Sweeny, G.M., Wang, B.*, **Cheng, Y.** (2023) "Loss of control eating during pregnancy is associated with excessive gestational weight gain among individuals with overweight and obesity," *BMC Pregnancy and Childbirth*, 23, 1-11.

88. Wang, Z.*, **Cheng, Y.**, Seaberg, E.C., Becker, J.T. (2022) Quantifying Diagnostic Accuracy Improvement of New Biomarkers for Competing Risk Outcomes," *Biostatistics*, 23, 666-682.

87. Zhang, S.*, Qu, Y.*, **Cheng, Y.**, Lopez, O., Wahed, A. (2022) "Prognostic Accuracy for Predicting Ordinal Competing Risk Outcomes Using ROC Surfaces," *Lifetime Data Analysis*, 28, 1-22.

86. Goldberg, S.M., Zhao, Y., **Cheng, Y.**, Weinstein, A.M., Gujral, S., Berman, S.B., Sweet, R.A., Butters, M.A., Lopez, O.L., Snitz, B.E. (2022) "Clinical progression of baseline risk states for mild cognitive impairment," *Journal of Alzheimer's Disease*, 88, 1377-1384.

85. Bruña, R., Maestu, F., López-Sanz, D., Bagic, A., Cohen, A., Chang, Y.F., **Cheng, Y.**, Doman, J., Huppert, T.J., Kim, T., Roush, R., Snitz, B., Becker, J.T. (2022) "Sex differences in MEG-identified functional connectivity in the HCP Connectomics of Brain Aging and Dementia cohort," *Brain Connectivity*, 12, 561-570.

84. Hawkins, M.S., Kolko Conlon, R.P., Donofry, S.D., Buysse, D.J., Venditti, E.M., **Cheng, Y.**, Levine, M.D. (2022) "Sleep characteristics modify the associations of physical activity during pregnancy and gestational weight gain," *Archives of Gynecology and Obstetrics*, `https://doi.org/10.1007/s00404-022-06677-z`.

83. Qu, Y.*, Weinstein, A., Wang, Z.*, **Cheng, Y.**, Kingsley, L., Levine, A., Martin, E., Munro, C., Ragin, A.B., Rubin, L.H., Sacktor, N.W., Seaberg, E.C., Becker, J.T. (2022) "Legacy Effect on Neuropsychological Function in HIV-Infected Men on Combination Antiretroviral Therapy," *AIDS*, 36, 19-27.

82. Kim, T., Aizenstein, H., Snitz, B., **Cheng, Y.**, Chang, Y.F., Roush, R., Huppert, T.J., Cohen, A., Doman, J., Becker, J.T. (2022) "Tract-based white matter lesion loads affect white matter microstructure and their relationships with functional connectivity and cognitive decline," *Frontiers in Aging Neuroscience*, `https://www.frontiersin.org/articles/10.3389/fnagi.2021.760663/full`.

81. Berger, J.S., Kornblith, L.Z., Gong, M.N., Reynolds, H.R., Cushman, M., **Cheng, Y.**, McVerry, B.J.,..., Neal, M.D. (2022) "Effect of P2Y12 inhibitors on survival free of organ support among non-critically ill hospitalized patients with COVID-19: A randomized clinical trial," *JAMA*, 327, 227-236.

80. Wang, Z.*, **Cheng, Y.**, Seaberg, E.C., Rubin, L.H., Levine, A.J., Becker, J.T. (2021) "Longitudinal multivariate normative comparisons," *Statistics in Medicine*, 40, 1440-1452.

79. Chen, L.*, **Cheng, Y.**, Ding, Y., Li, R. (2021) "Quantile association regression on bivariate survival data," *Canadian Journal of Statistics*, 49, 612-636.

78. Kim, T., Kim, S.Y., Agarwal, V., Cohen, A., Chang, Y.F., **Cheng, Y.**, Snitz, B., Huppert, T.J., Bagic, A., Kamboh, M.I., Doman, J., Becker, J.T. (2021) "Cardiac-Induced Cerebral Pulsatility, Brain Structure, and Cognition in middle and older-aged Adults," *NeuroImage*, 233, 117956.

77. Cohen A.D., Bruna, R., Chang, Y.F., **Cheng, Y.**, Doman, J., Huppert, T., Kim T., Maestu, F., Roush, R.E., Snitz, B.E., Becker, J.T. (2021) "Connectomics in brain aging and dementia - the background and design of a study of a Connectome related to human disease," *Frontiers in Aging Neuroscience*, https://doi.org/10.3389/fnagi.2021.669490.

76. Donofry, S.D., Emery, R.L., Kolko Conlon, R.P., Germeroth, L.J., Wang, B.*, **Cheng, Y.**, Levine, M.D. (2021) "Documenting the Course of Loss of Control over Eating prior to, during and after Pregnancy among Women with Pre-pregnancy Overweight and Obesity," *International Journal of Eating Disorders*, 54, 633-638.

75. Kolko Conlon, R.P., Wang, B.*, Germeroth, L.J., **Cheng, Y.**, Buysse, D.J., Levine, M.D. (2021) "Demographic, pregnancy-related, and health-related factors in association with changes in sleep among pregnant women with overweight or obesity," *Int J Behav Med.*, 28, 200-206.

74. Chen, L.*, Yavuz, I.*, **Cheng, Y.**, Wahed, A. (2020) "Cumulative incidence regression for dynamic treatment regimens," *Biostatistics*, 21, e113-130.

73. Levine, M.D., Emery, R.L., Conlon, R.P.K., Marcus, M.D., Germeroth, L.J., Salk, R.H., **Cheng, Y.** (2020) "Depressive symptoms assessed near the end of pregnancy predict differential response to postpartum smoking relapse prevention intervention," *Ann Behav Med.*, 54, 119-124.

72. Liu, X., Ning, J., **Cheng, Y.**, Huang, X., Li, R. (2019) "A flexible and robust method for assessing conditional association and conditional concordance," *Statistics in Medicine*, 38, 3656-3668.

71. Germeroth, L.J., Wang, Z.*, Emery, R.L., **Cheng, Y.**, Levine, M.D. (2019) "The role of self-efficacy and motivation in postpartum sustained smoking abstinence," *Women's Health Issues*, 29, 259-266.

70. Germeroth, L.J., Benno, M.T., Kolko Conlon, R.P., Emery, R.L, **Cheng, Y.**, Grace, J., Salk, R.H, Levine, M.D. (2019) "Trial design and methodology for a non-restricted sequential multiple assignment randomized trial to evaluate combinations of perinatal interventions to optimize women's health," *Contemporary Clinical Trials*, 79, 111-121.

69. Salk, R.H., Germeroth, L.J., Emery, R.L., Kolko, R.P., Wang, Z.*, **Cheng, Y.**, Marcus, M.D., Perkins, K., Levine, M.D. (2019) "Predictive utility of subtyping women smokers on depression, eating, and weight-related symptoms," *Health Psychology*, 38, 248-258.

68. Bodell, L.P., **Cheng, Y.**, Wildes, J.E. (2019) "Psychological impairment as a predictor of suicidal ideation in individuals with Anorexia Nervosa," *Suicide and Life-Threatening Behavior*, 49, 520-528.

67. Wang, Z.*, Molsberry, S.A., **Cheng, Y.**, Kingsley, L., Levine, A.J., Martin, E., Munro, C.A., Ragin, A., Rubin, L.H., Sacktor, N., Seaberg, E., Becker, J.T. (2019) "Cross-sectional analysis of cognitive function in the MACS with Multivariate Normative Comparisons," *AIDS*, 33, 2115-2124.

66. Li, Y., Wang, Z.*, **Cheng, Y.**, Becker, J.T., Martin, E., Levine, A., Rubin, L., Sacktor, N., Ragin, A., Ho, K. (2019) "Neuropsychological changes in Efavirenz switch regimens in the Multicenter AIDS Cohort Study," *AIDS*, 33, 1307-1314.

65. Yavuz, I.*, **Cheng, Y.**, Wahed, A. (2018) "Estimating the cumulative incidence function of dynamic treatment regimes," *Journal of the Royal Statistical Society A*, 181, 85-106.

64. Chen, X.*, **Cheng, Y.**, Frank, E., Kupfer, D.J. (2018) "Association analysis of successive events data in the presence of competing risks," *Statistical Methods in Medical Research*, 27, 1661-1682.

63. Molsberry, S.A., **Cheng, Y.**, Kingsley, L., Jacobson, L., Levine, A.J., Martin, E., Miller, E.N., Munro, C.A., Ragin, A., Sacktor, N., Becker, J.T. (2018) "Neuropsychological phenotypes among men with and without HIV disease in the multicenter AIDS cohort study," *AIDS*, 32, 1679-1688.

62. Bondell, L.P., Wildes, J.E., **Cheng, Y.**, Goldschmidt, A.B., Keenan, K., Hipwell, A.E., Stepp, S.D. (2018) "Associations between race and eating disorder symptom trajectories in black and white girls," *Journal of Abnormal Child Psychol.*, 46, 625-638.

61. Swartz, H.A., Cyranowski, J.M., **Cheng, Y.**, Amole, M. (2018) "Moderators and mediators of a maternal depression treatment study: Impact of maternal trauma and parenting on child outcomes," *Comprehensive Psychiatry*, 86, 123-130.

60. Li, R., **Cheng, Y.**, Chen, Q., Fine, J.P. (2017) "Quantile association for bivariate survival data," *Biometrics*, 73, 506-516.

59. Chen, K., **Cheng, Y.**, Berkout, O., Lindhiem, O. (2017) "Analyzing proportion scores as outcomes for prevention trials: A statistical primer," *Prevention Science*, 18, 312-321.

58. Kolko, R.P., Emery, R.L., **Cheng, Y.**, Levine, M.D. (2017) "Do psychiatric disorders or measures of distress moderate response to postpartum relapse prevention interventions?" Nicotine & Tobacco Research, 19, 615-622.

57. Conklin, C.A., Soreca, I., Kupfer, D.J., **Cheng, Y.**, Salkeld, R.P., Mumma, J.M., Jakicic, J.M., Joyce, C.J. (2017) "Exercise attenuates negative effects of abstinence during 72 hours of smoking deprivation," *Experimental and Clinical Psychopharmacology*, 25, 265-272.

56. Haile, S.R., Jeong, J-H, Chen, X.*, **Cheng, Y.** (2016) "A 3-parameter Gompertz distribution for survival data with competing risks, with an application to breast cancer data," *Journal of Applied Statistics*, 43, 2239-2253.

55. **Cheng, Y.**, Shen, P.S., Zhang, Z. and Lai, H.C. (2016) "Nonparametric association analysis of bivariate left-truncated competing risks data," *Biometrical Journal*, 58, 635-651.

54. Li, R. and **Cheng, Y.** (2016) "Flexible association modeling and prediction with semi-competing risks data," *Canadian Journal of Statistics*, 44, 361-374.

53. Kalarchian, M.A., Marcus, M., Courcoulas, A., **Cheng, Y.**, Levine, M.D. (2016) "Preoperative lifestyle intervention in bariatric Surgery: A randomized clinical trial," *Surgery for Obesity and Related Diseases*, 12, 180-187.

52. Levine, M.D., **Cheng, Y.**, Marcus, M.D., Kalarchian, M.A., Emery, R.L. (2016) "Preventing postpartum smoking relapse: A randomized clinical trial," *JAMA Internal Medicine*, 176, 443-452.

51. Swartz, H., Cyranowski, J.M., **Cheng, Y.**, Zuckoff, A., Brent, D.A., Markowitz, J., Martin, S., Amole, M., Ritchey, F., Frank, E. (2016) "Brief Psychotherapy for Maternal Depression: Impact on Mothers and Children," *Journal of the American Academy of Child and Adolescent Psychiatry*, 55, 495-503.

50. **Cheng, Y.** (2016) "Overt and hidden bias in observational studies," *American Journal of Psychiatry*, 173, 807-815.

49. Kalarchian, M.A., Marcus, M.D., Courcoulasc, A.P., Lutz, C., **Cheng, Y.**, Sweeny, G. (2016) "Structured dietary intervention to facilitate weight loss after bariatric surgery: A randomized, controlled pilot study," *Obesity*, 24, 1906-1912.

48. **Cheng, Y.** and Li, J. (2015) "Time-dependent diagnostic accuracy analysis with censored outcome and censored predictor," *Journal of Statistical Planning and Inference*, 156, 90-102.

47. Levine, M.D., **Cheng, Y.**, Marcus, M.D., Emery, R.L. (2015) "Psychiatric disorders and gestational weight gain among women who quit smoking during pregnancy," *J Psychosom Res.*, 78, 504–508.

46. Creswell, K., **Cheng, Y.**, Levine, M.D. (2015) "A test of the stress-buffering model of social support in smoking cessation: Is the relationship between social support and time to relapse mediated by reduced withdrawal symptoms?" *Nicotine & Tobacco Research*, 17, 566-571.

45. Glick, M.R., Matsumoto, M., Chen, X.*, **Cheng, Y.**, Smith, P., Balk, J.L., Greco, C.M., Bovbjerg, D.H. (2015) "Acupuncture for cancer-related pain – An open clinical trial," *Medical Acupuncture*, 27, 188-193.

44. Emery, R.L., Levine, M.D., **Cheng, Y.**, Marcus, M.D. (2015) "Change in body weight does not mediate the relationship between exercise and smoking cessation among weight-concerned women smokers," *Nicotine & Tobacco Research*, 17, 1142-1148.

43. Shi, H.*, **Cheng, Y.** and Li, J. (2014) "Assessing diagnostic accuracy improvement for survival or competing-risk censored outcomes," *Canadian Journal of Statistics*, 42, 109-125.

42. Li, R., **Cheng, Y.** and Fine, J. (2014) "Quantile association regression models," *Journal of the American Statistical Association*, 109, 230-242.

41. Wang, H.*, **Cheng, Y.** (2014) "Piecewise cause-specific association analyses of multivariate untied or tied competing risks data," *International Journal of Biostatistics*, 10, 197-220.

40. Bush, T., Levine, M. D., Magnusson, B., **Cheng, Y.**, Chen, X.*, Mahoney, L., Miles, L., Zbikowski, S. (2014) "Impact of baseline weight on smoking cessation and weight gain in quitlines," *Annals of Behavioral Medicine*, 47, 208-217.

39. Wildes, J.E., Marcus, M.D., **Cheng, Y.**, McCabe, E.B., Gaskill, J.A. (2014) "Emotion acceptance behavior therapy for anorexia nervosa: a pilot study," *Int J Eat Disord.*, 47, 870-873.

38. Kalarchian, M.A., Marcus, M.D., Courcoulas, A.P., **Cheng, Y.**, Levine, M.D. (2014) "Self-report of gastrointestinal side effects after bariatric surgery," *Surgery for Obesity and Related Diseases*, 10, 1202-1207.

37. Shi, H.*, **Cheng, Y.** and Jeong, J. (2013) "Constrained parametric model for simultaneous inference of two cumulative incidence functions," *Biometrical Journal*, 55, 82-96.

36. Soreca, I., **Cheng, Y.**, Frank, E., Fagiolini, A. and Kupfer, D.J. (2013) "Season of birth is associated with adult BMI inpatients with bipolar disorder," *Chronobiology International*, 30, 577-582.

35. Kalarchian, M.A., Marcus, M.D., Courcoulas, A.P., **Cheng, Y.** and Levine, M.D. (2013) "Preoperative lifestyle intervention in bariatric surgery: initial results from a randomized, controlled Trial," *Obesity*, 21, 254-260.

34. Zalewski, M., Cyranowski, J.M., **Cheng, Y.** and Swartz, H.A. (2013) "Role of maternal childhood trauma on parenting among depressed mothers of psychiatrically ill children," *Depression and Anxiety*, 30, 792-799.

33. Rastelli, C.P.B., **Cheng, Y.**, Weingarden, J., Frank, E., Swartz, H.A. (2013) "Differences between unipolar depression and bipolar II depression in women," *Journal of Affective Disorders*, 150, 1120-1124.

32. Levine, M. D., Bush, T., Magnusson, B., **Cheng, Y.** and Chen, X.* (2013) "Smoking-related weight concerns and obesity: differences among normal weight, overweight and obese smokers using a telephone tobacco quit line," *Nicotine & Tobacco Research,* 15, 1136-1140.

31. Levine, M.D., Marcus, M.D., Kalarchain, M.A., **Cheng Y.** (2013) "Strategies to Avoid Returning to Smoking (STARTS): A randomized controlled trial of postpartum smoking relapse prevention interventions," *Contemporary Clinical Trials*, 36, 565-573.

30. Levine, M.D., **Cheng, Y.**, Cluss, P.A., Marcus, M.D. and Kalarchian, M.A. (2013) "Prenatal smoking cessation intervention and gestational weight gain," *Women's Health Issues*, 23, e389-e393.

29. **Cheng, Y.**, Fine, J. P. (2012) "Cumulative incidence association models for bivariate competing risks data," *Journal of the Royal Statistical Society Series B*, 74, 183-202.

28. Shuang, J., Peng, L.M., **Cheng, Y.**, and Lai, H. J. (2012) "Quantile regression for doubly censored data," *Biometrics*, 68, 101-112.

27. Kalarchian, M.A., Marcus, M., Courcoulas, A., **Cheng, Y.**, Levine, M.D., Josbeno, D. (2012) "Optimizing long-term weight control after bariatric surgery: a pilot study," *Surgery for Obesity and Related Diseases*, DOI: 10.1016/j.soard.2011.04.231.

26. Levine, M.D., **Cheng, Y.**, Kalarchian, M.A., Marcus, M.D. (2012) "Relapse to smoking and postpartum weight retention among women who quit smoking during pregnancy," *Obesity*, 20, 457-459.

25. Swartz, H.A., Frank, E., **Cheng, Y.** (2012) "A randomized pilot study of psychotherapy and quetiapine for the acute treatment of bipolar II depression," *Bipolar Disorder*, 14, 211-216.

24. Levine, M.D., **Cheng, Y.**, Kalarchian, M.A., Perkins, K.A. and Marcus, M.D. (2012) "Dietary intake after smoking cessation among weight concerned women smokers," *Psychology of Addictive Behaviors*, 26, 969-973.

23. Lindhiem, O., Kolko, D. J., **Cheng, Y.** (2012) "Predicting psychotherapy benefit: a probabilistic and individualized approach," *Behavior Therapy*, 43, 381-392.

22. Kolko, D.J., **Cheng, Y.**, Campo, J.V., Kelleher, K. (2011) "Moderators and predictors of clinical outcome in a randomized trial for behavior problems in pediatric primary care," *Journal of Pediatric Psychology*, 36, 753-765.

21. Swartz, H. A., Frank, E., O'Toole, K., Newman, N., Kiderman, H., Carlson, S., Fink, J. W., **Cheng, Y.**, Maihoefer, C., Wells, K. F., Houck, P. R., Painter, T., Ortenzio, S. H., Simon, S. L., Henschke, P., Ghinassi, F. (2011) "Implementing interpersonal and social rhythm therapy for mood disorders across a continuum of care," *Psychiatric Services*, 62, 1377-1380.

20. **Cheng, Y.**, Fine, J. P., Bandeen-Roche, K. (2010) "Association analyses of clustered competing risks data via cross hazard ratio," *Biostatistics*, 11, 82-92.

19. Yan, J., **Cheng, Y.**, Fine, J. P., Lai, H. J. (2010) "Uncovering symptom progression history from disease registry data with application to young cystic fibrosis patients," *Biometrics*, 66, 594-602.

18. Buysse, D.J., **Cheng, Y.**, Germain, A., Moul, D.E., Franzen, P.L., Fletcher, M., Monk, T.H. (2010) "Night-to-night sleep variability in older adults with and without chronic insomnia," *Sleep Medicine*, 11, 56-64.

17. Levine, M.D., Perkins, K.A., Kalarchian, M.A., **Cheng, Y.**, Houck, P. R., Slane, J.D., Marcus, M.D. (2010) "Bupropion and cognitive behavioral therapy for weight-concerned women smokers," *Archives of Internal Medicine*, 170, 543-550.

16. Levenson, J.C., Frank, E., **Cheng, Y.**, Rucci, P., Janney, C.A., Houck, P., Forgione, R.N., Econ, D., Swartz, H.A., Cyranowski, J.M., Fagiolini, A. (2010) "Comparative outcomes among the problem areas of interpersonal psychotherapy for depression," *Depression and Anxiety*, 27, 434-440.

15. Kolko, D. J., Campo, J. V., Kelleher, K., **Cheng, Y.** (2010) "Improving access to care and clinical outcome for pediatric behavioral problems: a randomized trial of a nurse-administered intervention in primary care," *Journal of Developmental & Behavioral Pediatrics*, 31, 393-404.

14. Levine, M.D., Marcus, M.D., Kalarchian, M.A., Houck, P.R., **Cheng Y.** (2010) "Weight concerns, mood, and postpartum smoking relapse," *American Journal of Preventive Medicine*, 39, 345-351.

13. Wildes, J.E., Marcus, M.D., Kalarchian, M.A., Levine, M.D., Houck, P.R., **Cheng, Y.** (2010) "Self-reported binge eating in severe pediatric obesity: impact on weight change in a randomized controlled trial of family-based treatment," *International Journal of Obesity*, 34, 1143-1148.

12. **Cheng, Y.**, Fine, J. P., Kosorok, M.R. (2009) "Nonparametric association analysis of exchangeable clustered competing risks data," *Biometrics*, 65, 385-393.

11. **Cheng, Y.** (2009) "Modeling cumulative incidences of dementia and dementia-free death using a novel three-parameter logistic function," *The International Journal of Biostatistics*, 5, 1557-4679.

10. Kalarchian, M.A., Arslanian, S.A., Ewing, L.J., Houck, P.R., **Cheng, Y.**, Ringham, R.M., Sheets, C.A., Marcus, M.D. (2009) "Family-based treatment of severe pediatric obesity: a randomized controlled trial," *Pediatrics*, 124, 1060-1068.

9. Fagiolini, A., Frank, E., Axelson, D.A., Birmaher, B., **Cheng, Y.**, Curet, D.E., Friedman, E.S., Gildengers, A.G., Goldstein, T., Grochocinski, V G., Houck, P.R., Stofko, M.G., Thase, M.E., Thompson, W.K., Turkin, S.R., Kupfer, D.J. (2009) "Enhancing outcomes in patients with bipolar disorder: results from the Bipolar Disorder Center for Pennsylvanians study," *Bipolar Disorder*, 11, 382-390.

8. **Cheng, Y.**, Fine, J. P. (2008) "Nonparametric estimation of cause-specific cross hazard ratio with bivariate competing risks data," *Biometrika*, 95, 233-240.

7. Swartz, H.A., Frank, E., Zuckoff, A., Cyranowski, J. M., Houck, P.R., **Cheng, Y.**, Fleming, M. A., Grote, N. K., Shear, M. K. (2008) "Brief interpersonal psychotherapy for depressed mothers whose children are receiving psychiatric treatment," *The American Journal of Psychiatry*, 165, 1155-1162.

6. **Cheng, Y.**, Fine, J.P., Kosorok, M.R. (2007) "Nonparametric analysis of bivariate competing risks data," *Journal of the American Statistical Association*, 102, 1407-1416.

5. Yan, X.Y., **Cheng, Y.**, Bai, Z.D. (2006) "Asymptotics of adaptive design with two alternating generating matrices," *Journal of Statistical Planning and Inference*, 136, 4043-4058.

4. Raman, A., Colman, R.J., **Cheng, Y.**, Kemnitz, J.W., Baum, S.T., Weindruch, R., Schoeller, D.A. (2005) "Reference body composition in adult rhesus monkeys: glucoregulatory and anthropometric indices," *Journal of Gerontology*, 60A, 1518-1524.

3. Lai, H.J., **Cheng, Y.**, Farrell, P.M. (2005) "The survival advantage of patients with cystic fibrosis diagnosed through neonatal screening: evidence from the United States cystic fibrosis foundation registry data," *Journal of Pediatrics*, 147, S57 - S63.

2. **Cheng, Y.** (2004) "Asymptotic probabilities of misclassification of two discriminant functions in cases of high dimensional data," *Statistics and Probability Letters*, 67, 9-17.

1. Lai, H.J., **Cheng, Y.**, Cho, H., Kosorok, M.R., Farrell, P.M. (2004) "Association between initial disease presentation, lung disease outcomes, and survival in patients with cystic fibrosis," *American Journal of Epidemiology*, 159, 537 - 546.

Peer-Reviewed Book Chapters

- **Cheng, Y.** (2018) "An Introduction to Survival Analysis Using Stata, revised 3rd ed," book review, *American Statistician*, 72, 105-113.

RESEARCH GRANTS

- (Subcontract PI) "Pragmatic Comparative Effectiveness using Sequential Multiple Assignment Randomized Trials," PCORI ME-2021C3-24215-IC, 2/1/23-1/31/26

- (**Principal Investigator**) "Dynamic multivariate normative comparison and risk screening for Alzheimer's disease progression," NSF DMS-1916001, 8/15/19-7/31/24, $179,930

- (Co Investigator) "Resilience to prenatal stress: implications for offspring health and neurodevelopment," NIH UG3OD23244, 09/23-05/25 (PI: Hipwell)

- (Unblinded statistician) "A multicenter, adaptive, randomized controlled platform trial of the safety and efficacy of antithrombotic strategies in hospitalized adults with COVID-19," ACTIV4A, NHLBI, 2/19/21-5/31/22 (Clinical chair: Judith Hochman)

- (Co Investigator) "Subclinical vascular disease and AD pathology in the transition from midlife to old age," R01 AG052525, NIA, 9/1/18-6/30/23 (PI: Oscar Lopez)

- (Co Investigator) "Preconception and prenatal stress effects on cardiovascular disease risk in black women," R01HL157787, NIH, 9/15/20-7/31/25 (PIs: Hipwell & Levine)

- (Co Investigator) "Optimizing health from pregnancy through one year postpartum: A sequential multiple assignment randomized trial (SMART) of perinatal lifestyle intervention," R01HL132578-01A1, NHLBI, 9/1/16-6/30/21 (PI: Michele Levine)

- (Co Investigator) "ADRC Neuroimaging Core F Revision," 8/15/18-3/31/20 (PI: Oscar Lopez)

- (Co Investigator) "The role of impulsive phenotypes on weight trajectories and response to behavioral interventions during pregnancy and the postpartum period," R01DK117358, 4/15/18-3/31/21 (PI: Michele Levine)

- (Co Investigator) "Cardiovascular and HIV/AIDS effects on brain structure/function and cognition," R01AG034852-06, NIA, 7/1/16 - 3/31/21 (PI: James Becker)

- (Co Investigator) "Connectomics of brain aging and dementia," UF1AG051197-01A1, NIA, 6/1/16 - 5/31/20 (PI: James Becker)

- (**Principal Investigator**) "Novel evaluation of risk factors for Alzheimer's disease in the presence of the competing risk of death," ADRC pilot award, P50AG005133, NIA, 4/1/17-3/31/18, direct cost $25,658

- (Co Investigator) "Development of anhedonia in high-risk adolescents," R01 MH104418-01A1, NIMH, 6/1/15 - 8/31/17 (PI: Erika Forbes)

- (Co Investigator) "Cognitive inflexibility and phenotypic heterogeneity in anorexia nervosa," R01 MH103230-01, NIMH, 7/18/14-8/31/17 (PIs:Jennifer Wildes and Erika Forbes)

- (Co Investigator) "Relationship of loss of control eating to excessive gestational weight gain," R01 HD068802, NICHD, 3/1/12-2/28/17 (PI: Michele Levine)

- **(Principal Investigator)** "Association, regression and diagnostic accuracy analyses of competing risks data," NSF DMS-1207711, 9/1/12-8/31/15, $99,935

- (Co Investigator) "Interpersonal psychotherapy for depressed mothers of psychiatrically ill children," R01 MH083647, NIMH, 5/8/09-9/30/14 (PI: Swartz, Holly)

- (Co Investigator) "Use of Nutrisystem to Facilitate Dietary Adherence and Maximize Weight Loss After Bariatric Surgery," OBESITY, 9/4/12 -10/25/14 (PI: Kalarchian, Melissa).

- (Co Investigator) "Reducing depressive symptoms in systemic lupus erythematosus," R01 AR057338, NIAMS, 7/1/09-5/31/14 (PI: Greco, Carol)

- (Co Investigator) "Preoperative lifestyle intervention in bariatric surgery," R01 DK077102, NID-DKD, 9/1/07-8/31/13 (PI: Kalarchian, Melissa)

- (Co Investigator) "Addressing postpartum mood and weight concerns to sustain smoking cessation," R01 DA021608, NIDA, 9/30/07-6/30/13 (PI: Levine, Michele)

- (Co Investigator) "The effect of exercise on acute nicotine withdrawal: human study," R01 DA027508, NIDA, 9/1/09-5/31/13 (PIs: Soreca, Isabella and Conklin, Cynthia)

- (Co Investigator) "Acupuncture for the treatment of insomnia - a pilot study," R21 AT004429, NCCAM, 3/1/09-2/28/13 (PI: Glick, Ronald)

- (Statistical Consultant) "The needs of obese tobacco quitline users: a qualitative & quantitative evaluation," R21 DA026580, NIDA, 9/15/09-8/31/12 (PI: Bush, Terry)

- **(Principal Investigator)** "Association analysis of multivariate competing risks data," NSF DMS-0906449, 7/1/09-6/30/12, $196,354

- (Co Investigator) "Emotional acceptance behavior therapy for anorexia nervosa," R01 MH082685, NIMH, 9/28/07-7/31/11 (PI: Marcus, Marsha)

- (Statistical Consultant) "Enhancing long-term outcome in child behavior disorder," R01 MH057727, NIMH, 6/15/07-11/30/10 (PI: Kolko, David)

TEACHING AND ADVISING

Courses

1. STAT0200 Basic Applied Statistics, Fall 2008

2. STAT1000 Applied Statistical Methods, Fall 2010, 2012

3. STAT 1631/2630 Intermediate Probability, Fall 2011

4. STAT 1632/2640 Intermediate Mathematical Statistics, Spring 2008, 2012, 2021

5. STAT2131 Applied Statistical Methods I, Fall 2009, Fall 2015, Fall 2018

6. STAT2132 Applied Statistical Methods II, Spring 2014, 2015, 2022, 2023

7. STAT2261 Survival Analysis, Spring 2007, 2009, 2011, 2013, 2015, 2017, 2020, 2021, Fall 2023, 2024

8. STAT 2381 Supervised Statistical Consulting, Fall 2020, 2021, 2022

Doctoral Dissertation Advising

1. Dongli Zhou — Co-advised with Wesley Thompson: "Functional connectivity analysis of FMRI time-series data" (2010); current employment: EMD Serono.

2. Hao Wang — Co-advised with Satish Iyengar: "Association analysis for multivariate time-to-event data" (2011); current employment: Gilead.

3. Haiwen Shi — "Parametric regression analysis and discrimination analysis of competing risks data" (2012); current employment: FDA CDER.

4. Idil Yavuz — "Non-parametric inference and regression analysis for cumulative incidence function under two-stage randomization" (2013); current employment: Dokuz Eylul University.

5. Martin Houze — Co-advised with Satish Iyengar: "Joint regression modeling of two cumulative incidence functions under an additivity constraint and pill monitoring" (2015); current employment: PNC.

6. Xiaotian Chen — "Association analysis of successive events and diagnostic accuracy analysis for competing risks data" (2015); current employment: AbbVie.

7. Song Zhang — Co-advised with Abdus Wahed: "Diagnostic accuracy analysis for ordinal competing risks outcomes using ROC surface" (2017); current employment: Stat4ward.

8. Yongli Shuai — Co-advised with Jong-Hyeon Jeong: "Multinomial logistic regression and prediction accuracy analysis for interval-censored competing risks data" (2017); current employment: GSK.

9. Ling-Wan Chen — "Cumulative incidence regression for dynamic treatment regimes and quantile association model for bivariate survival data" (2018); current employment: FDA.

10. Zheng Wang — "Longitudinal Multivariate Normative Comparisons and Accuracy Improvement Metrics for Competing Endpoints" (2020); current employment: Loomis Sayles.

11. Yang Qu — "Concordance Measure for Variable Screening and Model Evaluation with Competing Risks Data" (2022); current employment: Central South University, China.

12. Lingyun Lyu — Co-advising with Abdus Wahed, "Imputation-Based Q-Learning for Optimizing Dynamic Treatment Regimes with Time-to-Event Data" (2022); current employment: Bristol Myers Squibb.

13. Bang Wang — "Identification of Causal Effect Modifiers for Time to Relapse and A Weighted Generalized Win-Odds Regression Model for Composite Endpoints" (2022); current employment: Vertex.

14. Zi Wang, in progress.

15. Xue Yang, co-advising with Abdus Wahed, in progress.

16. Jiazhi He, in progress.

Doctoral Dissertation as a Committee Member

1. Wei Zhang: "Optimal design and adaptive design in stereology" (2009)

2. Yao Zhang: "Statistical treatment of gravitational clustering algorithm" (2009)

3. Seo Hyon Baik: "Mapping underlying dynamic effective connectivity in neural systems using the deconvolved neuronal activity" (2010)

4. Chen Teel: "Improved sample size re-estimation in adaptive clinical trials without unblinding" (2010)

5. Myung Soon Song: "Unconventional approach with the likelihood of correlation matrices" (2011)

6. Hyewook Jeong: "The spectral analysis of nonstationary categorical time series using local spectral envelope" (2012)

7. Qi Zhang: "Optimal procedures in high dimensional model selection" (2013)

8. Siyu Li: "Simultaneous population and dose selection in clinical trials and cluster validation" (2014)

9. Wenjing Qi: "High Dimensional Variable Selection via Penalized Likelihood for GLMs" (2014)

10. Jieyu Fan: "Model Selection and Validation for Hidden Markov Models" (2014)

11. Scott D. Rothenberger: "Analysis of functional correlations" (2014)

12. Cong Ye: "Multiple change-point detection for piecewise stationary categorical time series" (2015)

13. Brian McGill: "Bayesian inference on a mixed-effects location-scale model with normal and skewed error distribution" (2017)

14. Zhang Zhang: "Sequential clustering via recurrence network analysis" (2017)

15. ByungWon Kim: "Parametric and nonparametric small-circle models for directional data" (2018)

16. Bowen Yi: "Inference based on boundary crossing of diffusions" (2018)

17. Brian Lynch: "Analysis of multi-way functional data under weak separability, with applications to brain connectivity studies" (2018)

18. Xiaonan Zhu: "High-dimensional bias-corrected inference, with applications to fMRI studies" (2019)

19. Chen Gong: "Particle Gibbs methods in stochastic volatility models" (2019)

20. Xing Gao: "Covariate-driven factorization by thresholding for multi-block data" (2020)

21. Ryan Kelly: "Distribution free prediction intervals for multiple functional regression" (2020)

22. Haeun Moon: "Interpoint-ranking based test of independence" (2022)

23. Siyu Zhou: "Random forests and regularization" (2022)

24. Taehee Jung: "Quantifying Uncertainty in context of Natural Language Processing" (2022)

25. Yaotian Wang: "High-dimensional directed network analysis of human brains" (2023)

26. Lixia Yi: "High-dimensional knockoffs based on spied covariance model and low-rank decomposition" (2024)

27. Kangyi Zhao: "Modeling of social network dependence in regression" (expected 2025)

28. Jinwoo Cho: "Dynamic prediction using jointly estimated landmarking and network assisted localized functional principal component analysis for brain MEG" (expected 2025)

29. Manuel Garcia Acosta: "An adaptive test for selecting variance models in multi-Omics data with latent confounders" (expected 2025)

30. Huy Le: "Differentially methylated regions in longitudinal and multivariate DNA methylation data" (expected 2025)

31. Heqiao Ran: "Understanding Out-of-Distribution: Hypothesis Testing and Causal Infernece" (expected 2025)

Doctoral Dissertation for Biostatistics and Business Students as an Outside Committee Member

1. Sachiko Miyahara: "Statistical inferences for two-stage treatment regimes for time-to-event and longitudinal data" (2009)

2. Jinnie Ko: "Statistical issues in the design and analysis of sequentially randomized trials" (2010)

3. Jeongyoun Lim: "Inference on censored survival data under competing risks" (2011)

4. Yun Lin: "Detection of influential observations in longitudinal multivariate mixed effects regression models" (2014)

5. Wen-Chi Wu: "Inference on conditional quantile residual life for censored survival data" (2014)

6. Semhar B. Ogbagaber: "Hypothesis testing in sequentially randomized designs through artificial randomization and permutation" (2014)

7. Seung Hyun Won: "Joint modeling of time-to-event data and multiple ratings of a discrete diagnostic test without gold standard" (2014)

8. Qing Liu: "Dynamic prediction in competing risks" (2014)

9. Kidane Ghebrehawariat: "Parametric inference on quantile residual life" (2015)

10. Geoffrey Johnson: "Quality adjusted lifetime optimization and variable selection for dynamic treatment regimes" (2016)

11. Lauren Balmert: "Nonparametric and semiparametric inference on quantile lost lifespan" (2017)

12. Yi Liu: "Novel test procedures for large-scale bivariate time-to-event data on single and gene-based markers, with an application to a genetic study of AMD progression" (2017)

13. Yimeng Liu: "A series of two-sample non-parametric tests of quantile residual lifetime" (2017)

14. Tuhin Chaturvedi: "Corporate development as an adaptive mechanism in evolving technology ecosystems: three essays" (2018)

15. Xingyuan Li: "Modeling exposure-time-response association in the presence of competing risks" (2019)

16. Tao Sun: "New statistical methods for complex survival data with high-dimensional covariates" (2020)

17. Junyao Wang: "Adaptive randomization in a two-stage sequential multiple assignment randomized trial" (2020)

18. Yue (Luna) Wei: "New statistical insights to precision medicine, from targeted treatment development to individualized tailoring recommendation" (expected 2021)

19. Liwen Wu: "Interim monitoring in sequential multiple assignment randomized trials" (2021)

20. Yichen Jia: "New Model-based and Deep Learning Methods for Survival Data with or without Competing Risks" (2022)

21. Adam Kruchten: "Theory and methods for spatiotemporal point processes" (2024)

22. Na Bo: "New methods to analyze heterogeneous treatment effects and identify causal subgroups with survival outcomes" (expected 2025)

Masters Dissertation as a Committee Member

1. Nicholas Kissel: "Characterizing uncertainty in low-dimensional model selection" (2019)

2. Cameron O'Neill: "Perception Meets Reality: Comparing Perception based rankings via the U.S. News & World Report Statistic Department Rankings to Research Output Based Rankings" (2023)

Masters Dissertation for Biostatistics Students as an Outside Committee Member

1. Lu Wang: "Post-transplant survival in pediatric liver transplant patients with biliary atresia: a comparison of competing risk models" (2013)

2. Chunyan Wang: "Nonparametric estimation of the association between liver transplantation waiting time and posttransplant graft failure" (2016)

3. Yuanyuan Jiao: "Causal effect of sleep disturbance on cognitive decline in older adults" (2018)

RECENT PRESENTATIONS

Invited Talks, Seminars, and Webinars

- "Novel Diagnostic Accuracy Analysis for Competing Risks Outcomes with ROC Surfaces,"

  – ICSA International, Shanghai, Dec 2016
  – LIDA, Storrs, CT, May 2017
  – ICSA China with the Focus on Lifetime Data Analysis, Jilin, China, July 2017

- "Risk Screening for Alzheimer's Disease Progression with Volume Under the ROC Surface,"

  – JSM, invited topic contributed talk, Baltimore, MD, August 2017
  – ICSA, New Brunswick, NJ, June 2018

- "Multivariate Normative Comparisons for Impairment Classification,"

  – ADRC research group, seminar, Pittsburgh, March 2019

- "Quantile Association Model for Bivariate Survival Data,"

  – Lifetime Data Science Conference, Pittsburgh, May 2019
  – ICSA Applied Statistics Symposium, Raleigh, June 2019
  – ICSA China, Tianjian, July 2019
  – ICSA International, Hongkong, July 2023 (postponed)

- "Proper evaluation of risk factors for Alzheimer's disease in the presence of competing risk of death,"

  – ADC Analytics Workshop, St. Louis, MO, October 2019

- "Search for optimal dynamic treatment regime through design and analyses of SMART data,"

  – Department of Statistics and Actuarial Sciences, Northern Illinois University, IL, Nov 2019

- "Multivariate normative comparisons for impairment classification based on retrospective longitudinal data,"

  – Department of Statistics and Actuarial Sciences, Northern Illinois University, IL, Nov 2019
  – Department of Mathematics and Statistics, Xi'an Jiaotong University, Xi'an, China, Dec 2019

- "Novel Metrics for Assessing Importance of New Biomarkers for Competing Outcomes,"

  – Computational and Methodological Statistics, London, Dec 2019

- "Optimal treatment decision by a combined moderator,"

  – ICSA International Conference, Hangzhou, China, Dec 2019

- "Identification of Optimal Moderators for Time to Relapse,"

  – JSM, invited topic contributed talk, virtual, August 2020

- "Quantifying Diagnostic Accuracy Improvement of New Biomarkers for Competing Risk Outcomes,"
  - ICSA applied symposium, invited talk, virtual, Dec 2020

- "Dynamic impairment classification through arrayed comparisons,"
  - Renmin University of China, virtual seminar, May 2022
  - University of Pittsburgh, Biostatistics, Oct 2022

- "Multinomial logistic regression and prediction accuracy for interval-censored competing risks data,"
  - JSM, Washington DC, August 2022

- "Imputation-based Q-learning for optimizing dynamic treatment regimes with right-censored survival outcome,"
  - ICSDS, Florence Italy, December 2022
  - IISA, Bangalore India, December 2022

- "Weighted generalized win-odds regression models for composite endpoints,"
  - ICSA China, Chengdu, June 2023

- "Nonparametric estimation of subgroup mediation effects with semi-competing risks data,"
  - ICSDS, Taipei Taiwan, July 2023
  - JSM topic contributed, Toronto, August 2023

- "Interim analysis in sequential multiple assignment randomized trials for survival outcomes,"
  - ENAR, Baltimore, March 2024
  - JCSDS, Kunming, July 2024

- "Treatment stratum-specific mediation effect via an intermediate outcome on a terminal event,"
  - ICSA Canada, Niagara Fall, June 2024

- "Imputation-Based Q-Learning for Optimizing Dynamic Treatment Regimes with Competing Risk Outcomes,"
  - ICSA China, Wuhan, June 2024

PROFESSIONAL MEMBERSHIPS

1. American Statistical Association 2005-present

2. Institute of Mathematical Statistics 2005-2013, 2022-present

3. International Biometric Society (ENAR) 2006-2018, 2024-present

4. International Chinese Statistical Association 2007-present

PROFESSIONAL SERVICE

- Intramural Services:

  1. Sloan Centers for Systemetic Change Steering Committee, Sept 2023-Dec 2024
  2. Associate Vice Provost for Data Science Search Committee, Fall 2022
  3. Provost's Advisory Committee on Women's Concerns, 2018-2019, Spring 2022
  4. Dietrich School of Arts and Sciences School Council, rotating member, 2024-2025
  5. Dietrich School of Arts and Sciences, ad hoc tenure promotion committee, 2014-present
  6. Dietrich School of Arts and Sciences, faculty diversity committee, 2015-2019
  7. Dietrich School of Arts and Sciences, tenure council alternate, 2019-2022.
  8. Data Science Steering Committee, 2025-present
  9. Department of Statistics, chair of the faculty search committee, AY 2018, 2023, 2024, 2025
  10. Department of Statistics, search committee for faculty position, Spring 2011, 2012, 2014, 2015, 2016, 2017, 2019, 2020, 2022
  11. Department of Statistics, chair of faculty promotion reading committee, 2019-present
  12. Department of Statistics, chair of graduate admission, Spring 2016, 2017
  13. Department of Statistics, admission committee, 2009-present
  14. Department of Statistics, computing and web site committee, Spring 2007
  15. Department of Statistics, seminar coordinator, Fall 2007, Spring 2008
  16. Neuroscience Clinical and Translational Research Center, scientific advisory committee, 2007-2008 — peer review of grant proposals
  17. Department of Statistics, qualifying exam committee, 2008-present

- Extramural Services:

  1. Treasurer 2021-2023 for the ASA Lifetime Data Science Section (LIDS)
  2. President-elect, President, Past President, American Statistical Association Pittsburgh Chapter, 2013-2016
  3. Judge, International Science & Engineering Fair, 2015
  4. ASA Biopharmaceutical Section FDA-Industry Statistics Workshop, Steering Committee, 2014-2017
  5. Ad hoc reviewer for NSA-AMS scientific program, 2015
  6. ICSA poster session committee, 2015
  7. Ad hoc reviewer, Research Grants Council (RGC) of Hong Kong, 2016, 2018, 2019

8. NIMH review panel, 2018, 2019

9. NSF review panel, 2019

10. Tenure promotion reviewer for faculty elsewhere, 2018, 2019, 2020

11. Co-chair of Local Organizing Committee, LiDS conference, Pittsburgh, PA May 2019