American Statistical Association
Mid-Michigan Chapter

In celebration of the ASA 175th Anniversary, the Mid-Michigan Chapter is pleased to announce its 2014 spring meeting. Our guest speaker is Tim Rey, Director, Advanced Analytics, Steelcase, Inc., Grand Rapids, Michigan.

Tim graduated in 1979 with an MS in Forestry Biometrics from Michigan State University. As of July 2013, Tim joined Steelcase, Inc. as the Director of Advanced Analytics reporting to the CIO. Tim is responsible for setting and executing Steelcase's strategy for Advanced Analytics. Previous to joining Steelcase, Tim worked for The Dow Chemical Company for 34 years in various quantitative roles having started in R&D as a statistician. Tim has written over 100 internal papers as well as published 15 papers externally. He has delivered numerous keynote presentations and technical talks at various quantitative methods forums. Tim has co-chaired both forecasting and data mining conferences. Most recently he co-authored the book "Applied Data Mining for Forecasting using SAS".

Thursday, April 3, 2014, 7:00 – 8:30 pm

Chapter business meeting and presentation

Social hour & meeting: 7:00 – 7:30 pm

Presentation: **7:30 – 8:30 pm**

Location: **Central Michigan University, Pearce Hall, Room 138**

Title of presentation: **The Curse of Dimensionality in a Real Life Industrial Problem**

Abstract: Industrial data mining (supervised learning) problems generally involve wrestling with the "curse of dimensionality". Data collected in an industrial transaction environment is rarely if ever intended to be used in a modeling problem, let alone in a "cause and effect" modeling problem. Thus the contradiction between cause and effect (ala the use of the scientific method and proper design of experiments) and "prediction" is before us. This curse of dimensionality seems to prevent analytics professionals from finding true cause and effect. Data sets not intended for modeling generally have significant multicollinearity, lack of balance and often are too wide (p being inappropriate for n). Approaches for solving these issues can be broken down in three classes; dimension reduction, parameter adjustment and data structure adjustment. This talk will show an industrial data mining problem where the curse is present in all its glory. Each of the three basic methods for supposed "solutions" to the problem will be presented using modern day technologies.

Chapter web address: http://asa.mth.cmich.edu/