1135-J1-2054   **Linn E. Carothers*** (`lcarothers@calbaptist.edu`), 8432 Magnolia Ave, Riverside, CA 92504.
Youth @ Risk: Data Mining A Longitudinal Cohort to Predict Patterns of Family Instability and Crime.

Data mining a 18 year follow-up study of a large Danish Prospective Perinatal cohort identified key correlates of family instability that contribute to adolescent and young adult criminality. Comparative log-linear analyses of paternal crime, descriptions of the families' patterns of stability, and socioeconomic status changes over the life of the offspring revealed predictive gender, family constellation and SES combinations at risk for criminal behavior. These techniques, visualizations and modeling provide socially significant examples to students of using applied mathematical techniques to suggest crime prevention interventions. (Received September 25, 2017)