Data Analysis Exercises for Chapter 21: Applied Regression Analysis, Generalized Linear Models, and Related Methods, Third Edition (Sage, 2016)

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- **Exercise D21.1** Return to the robust-regression models that you fit in Exercise D19.1. Use the bootstrap to compute coefficient standard errors and confidence intervals for these models, comparing the results to the asymptotic standard errors that you obtained previously. Repeat the exercise for the robust generalized linear models fit in Exercise D19.2.
- Exercise D21.2 Locate a data set for a large-scale social survey of interest to you; the survey should employ a complex sampling design involving, for example, stratification or clustering (or both). Although such surveys are common, it is important to find a data set that contains sufficient information about the survey design, such as variables for stratum or cluster membership. (One source of survey data is the Inter-University Consortium for Political and Social Research data archive, at <http://www.icpsr.umich.edu/ICPSR/access/index.html>.) Employing the survey data set, specify a regression model of some sort. Estimate coefficient standard errors in two ways: (1) assuming an independent random sample; and (2) employing the bootstrap, taking the survey design into account. How do the two sets of standard-error estimates compare?