



Northwest Indian Fisheries Commission

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Agenda for Regression Analysis Workshop September 3, 2015 Northwest Indian Fisheries Commission

We have a lot of material to cover so the workshop will start promptly at 9:00am. Coffee and pastries will be available from 8:30 to 9:00.

- 9:00**
- I. Introductions
 - II. What is a regression model?
 - III. Simple Linear Regression
 - A. Hypothesize your model (data exploration and simple linear regression)
 - B. Estimating parameters
 - C. Model assumptions (residuals, assumptions, and variable transformations)
 - D. Assessing model adequacy
 - E. Interpretation of results (confidence and prediction intervals, explanations for both technical and non-technical audiences)
 - F. Special topics (predicting outside the range, outliers, and leverage)

(Lunch provided by NWIFC)

- IV. Multiple Linear Regression
 - A. Working with more than one independent variable (exploring the data, multicollinearity)
 - B. Hypothesize your model (building a model, higher order terms and interactions)
 - C. Estimating parameters
 - D. Model assumptions
 - E. Assessing model adequacy
 - F. Interpretation of results
 - G. Special topics (overfitting, using qualitative variables)
 - V. Conclusion
 - A. Help files for different statistical software packages
 - B. Flow charts & check-lists for future analyses
 - C. Future workshop planning
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