



The UNIVERSITY of NORTH CAROLINA
at CHAPEL HILL

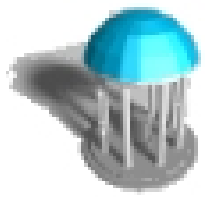
STOR 155 Introductory Statistics

Lecture 8: Least-Squares Regression



Review

- Scatter plot:
 - Association: form, direction, strength
 - Just **graphical**, not **numerical**
- Correlation:
 - Direction, strength, linear
 - Properties
 - Vertical and horizontal lines: $r = 0$.
- Correlation cannot tell the exact relationship.



Topics

- **Least-Squares Regression**
 - Regression lines
 - Equation and interpretation of the line
 - Prediction using the line
- **Correlation and Regression**
- **Coefficient of Determination**