Assignment

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Show your R work (both your input and your output) for each question below. You may find this FAQ useful.

Coarse Woody Debris

Coarse woody debris (CWD) in lakes is important for aquatic systems as it provides refuge for young fish and invertebrates as well as providing areas for periphyton to grow. Coarse woody debris was studied in the north basin of Allequash Lake in northern Wisconsin. Among other things, the researchers recorded the diameter (cm) of CWD found in the lake littoral zone and a qualitative measure of the degree to which the location where the CWD was found was exposed to winds (low or medium). The data (sampled from information on the North Temperate Lakes Long Term Ecological Research website) they observed are shown below.

Load the data into R (note that you entered these data in a previous assignment) and answer the following questions using summary statistics and graphics that you produced.

1. Perform a univariate EDA for `exposure` (*create both a summary table and graphic*).
2. Perform a univariate EDA for `diameter`.

Brain Weight

Construct a separate univariate EDA of `head.size` for each `age.group` in BrainHead.csv.

Water Usage

Students in a senior level environmental studies class at Rice University conducted a voluntary response survey regarding water usage by their peers. They received returned surveys from a total 130 students. One question on their survey was, “On average, for how many minutes do you let the water run each time you take a shower? 0-5, 6-10, 11-15, or over 15 minutes?” The individual responses for this survey are shown below with letters corresponding to the category choices offered (e.g., “A”=0-5, “B”=6-10, and so on). Enter these data into R and construct an appropriate univariate EDA. (**Please double-check your data entry.**)