

## Assignment 1: introduction to Histograms, Box-Whiskers, Scatter Plots, and summary statistics

We will get started starting R and running commands from a script file. We will interpret univariate and bivariate graphics, based on data from a nationally representative opinion poll from 2004.

You will download an R 'workspace', which contains the data for the exercise. Open the script file and follow the instructions for automatically loading the data into R as a dataset. The dataset for the 2004 survey (stored as 'poll' in the Assignment workspace) is an excerpt from a nationally representative poll of US citizens 18 years of age or older, interviewed in the fall of 2004, the American National Election Studies (ANES) pre-election study. The dataset consists of a series of variables, most of which are 'feeling thermometers', in respondents are asked to rate how 'warmly' or 'coolly' individuals feel toward particular social groups or political figures. (The scale ranges from 0 to 100.)

In the dataset, each of these scores are saved as quantitative, interval scale variables end with the suffix 'ft'. For example, 'bushft' is each survey respondent's feeling toward President Bush. Variable 'lbushft' is feeling toward Laura Bush. (Variables 'welfareppleft' and 'conservatives' are feeling thermometers for people on welfare and conservatives, respectively. Variable 'christfunft' refers to christian fundamentalists. 'ashcroftft' refers to Bush's first attorney general. Other variables are categorical (ordinal or nominal), and include verbal Assignments for response categories such as a) 'gender' — gender of respondent; b) 'race' — race of respondent; c) 'abor' — abortion policy attitude; d) 'fair' — whether the respondent thought the 2000 election result was fair or not; e) 'prezapp' — approval of Bush job performance; f) 'campint' — level of interest in the 2004 campaign; g) 'libcon' — liberal, moderate, or conservative identification; h) 'party' — Democrat, Republican, or Independent identification; i) 'partyid' — identification on a seven point scale; and j) 'educ' — educational level of respondent.

**Assignment introduction:** Using the commands from the script file — and your own customization of those commands — complete the following questions below. In answering each, you are responsible for deciding which graphical forms to use, and which summary statistics, to answer each question. In the Assignment as a whole, the minimal requirements are to produce *at least* one of *each* of the following types of figures: a) histograms, b) box-whiskers plots, and c) density plots. And you need to compare some basic summary statistics, such as means, medians, or standard deviations. You will be graded on the extent to which you provide evidence answering each question. (There are various ways of answering each question; pick the way that interests you. You are *not* expected to provide graphical comparisons of every single person or social group. Investigate the data, then present some evidence to backup your opinion.)

Now, because you are a curious political science student, you are welcome to make up to three one-to-one question substitutions for three of the supervisor's questions. So, for example, if you thought it would be interesting to compare feelings toward various political candidates based upon their views of Biblical authority, you can do that. Just make sure you still provide at least one set of each of the figure types and the summary statistics. You should let your own curiosity guide your analysis.

## Assignment 1 Questions

*Imagine that you are on an internship at a political research organization in DC. Your internship supervisor is interested in finding out how well or least liked various political figures and social groups were in the US around the 2004 and/or the 2008 election. (You get to decide what data to analyze.) Since she knows you are a GVSU student, she assumes you may be able to help her out. You do not want to disappoint. She hopes you can help answer these questions:*

- 1. In the general public, are there any public officials who are more polarizing than others? What evidence is there?*
- 2. Do Republicans, Democrats, and Independents tend to differ (as party identification groups) in the people they as groups feel warmly or coldly toward? Which candidates, and how? Which figures produce a more similar evaluation from party identification groups?*
- 3. What about social groups in the US? Apart from views toward religious groups, do men and women tend to view social groups with similar feelings? Or is there anything like a gender gap out there in feelings toward social groups?*
- 4. Similarly for the question about candidates, do Republicans, Democrats, and Independents tend to differ in any feelings toward social groups?*
- 5. Getting back to specific questions, I'm wondering about public views toward the three major religious groups in the US — Jewish, Muslim, and Christian. First, I would like to know whether there is evidence that any one of these groups as a whole is less liked than the others. And then second, again, comparing the views of partisans, men and women, or racial groups, how do these categories of people relate to how well the groups are liked as a whole? (Just take either gender, race, or partisanship as a category and compare it to public feeling toward the groups.)*
- 6. Also, I wonder whether it makes any difference whether we consider views toward Israel versus Jewish people as a group. Does the public tend to draw a distinction between the two? I would like to see a scatterplot of feelings toward Israel and Jews, to see if in the aggregate American public there appears to be much of a difference between the two.*