

## Mgmt 469

### Yogurt Project Assignment

You have yogurt sales data from a grocery store chain in the upper Midwest (e.g. Minnesota, North Dakota, or thereabouts). You have data on four brands: 1. Dannon, 2. Yoplait, 3. Store brand, and 4. Columbo. Note that this is actual data of the sort that a store might provide to a manufacturer.

You will take the point of view of someone advising the product manager for one of the branded yogurts (I will assign a specific brand to each group.)

Your data set contains the following variables:

- The week (represented by the year and week number; e.g, 199703 is the third week of 1997)
- Sales are "number of containers" for all flavors of that brand.
- Prices are average dollars per ounce of yogurt.
- Promo is a dummy variable indicating a "special refrigerated case" display.
- Storesales is the weekly sales (in \$000) for the entire store.

Begin working with the yogurtsmall.dta data set. After one week of getting to know yogurtsmall, you can proceed to work with the large data set, yogurtall. This contains weekly sales for four stores (including the store in yogurtsmall). Note that you will turn in one report based on the full yogurtall data set.

Here are the questions that the “client” would like you to answer?

Main questions:

- What is the relationship between the price of their yogurt and the demand for their yogurt?
- How do end-of-aisle promotions of their yogurt affect demand?

Additional questions:

- What are the substitute brands?
- Do some stores sell more yogurt than others?
- Are promotions more effective in some stores than others?
- Does the effect of price vary by store?

You should also feel free to provide your “client” with any other useful information about demand that you discover during your analysis.

Be sure to use the tools that we develop during the next few lectures. There is sure to be something of value in every class!

All project write-ups, including yogurt, should consist of two parts:

Part One (approx 25%): Powerpoint presentation of results.

- Slides should describe the motivation for the project, your empirical approach, data, results, and conclusions.
- Try to present your results clearly and concisely.
- Do not cut and paste Stata output.
- Be creative – maximize the ratio of “information to ink.” Remember the old saying, a picture (or bar chart, graph, or histogram) is worth a thousand regression tables.
- You should not require more than 10-15 slides.

Part Two (approx 75%): Annotated Stata Log file.

- You should create a do-file that contains your program starting from the raw data all the way through robustness checking.
- If you execute your do-file and save the output as a log file, you will have a complete record of your analysis and all results.
- You should save this file into MS Word and then annotate it.
- Tell me about your research strategy, how you cleaned the data, and how you chose your methods.
- Remember, good research methods usually do not require dozens of regressions. Show me how you can get convincing results without running every possible regression.
- Explain your results and interpret the magnitudes.
- If you perform a specific type of test more than once (e.g., partial F-test), you need only provide a detailed explanation once.
- If you have puzzling or ambiguous results, point them out. (I will notice them and deduct points if you do not.)
- You should not require more than 3-5 pages of annotation (interspersed throughout the log file).
- Tell me which results are robust and why.

Note that you must submit your do-file along with your log. The do-file will not be graded, but your project will be marked “incomplete” if you do not submit it.