BELOW IS INFORMATION TO ASSIST YOU IN DETERMINING THE APPROPRIATE LEVEL OF STATISTICAL SUPPORT YOU MAY REQUEST FROM THE CAIN CENTER INCLUDING RELEVANT POLICIES AND PROCEDURES:

Policies for Consultation with Cain Center GRAs

You have determined an appropriate statistical strategy but need help with operating statistical software such as SPSS or G*Power.

The GRA can:

- Show you the specific steps for using statistical software , including sample size software
- Guide you in setting up your data files
- Assist you with coding or computing variables within statistical software
- Help with descriptive statistics and tables
- Help you with syntax for statistical software

The GRA will NOT:

- Determine which analyses should be done for your project
- Determine your aims/hypotheses
- Write up any methods or results
- Help with data entry
- Do your homework

Policies for Consultation with Dr. Kesler

You need help to determine the best statistical analysis strategy for a grant or publication.

Dr. Kesler can:

- Consult with you regarding inferential statistical analyses for your project (faculty only)
- Conduct inferential statistical analyses and return the results (faculty only)
- Conduct power analysis to determine how many participants are needed for your study (faculty only)
- Write up the inferential statistical methods sections and results (faculty only)
 - This requires co-authorship/co-investigator status
 - Agreement to be a co-author/co-investigator is at Dr. Kesler's discretion
- Advise students regarding resources to review and study such that they can *independently* formulate a statistical plan for dissertation
- Provide *feedback* regarding a student's dissertation statistical plan

Dr. Kesler will NOT:

- Determine aims/hypotheses
- Help with datasets, data entry or data management
- Clean datasets (see below for further details)
- Conduct descriptive statistics or create tables for descriptive statistics
- Show you how to use statistical software or demonstrate analyses
- Preemptively tell students which analyses to conduct for their dissertation (students must first make a reasonable effort to determine a plan)

Procedures for Cain Center Consultations

Email Dr. Shelli Kesler (srkesler@austin.utexas.edu) to discuss your need for Cain Center assistance and verify whether consultations should be with GRA or Dr. Kesler. Note that Dr. Kelser oversees the work of the Cain Center Lab GRA. Dr. Kesler will determine if the needed assistance can be provided by GRA and will review and approve their work on the project.

Lab users – students and faculty – may ask the Lab GRA for assistance with the software programs during the GRA's lab hours.

Additional Procedures for Consultation with Dr. Kesler

When sending Dr. Kesler your dataset, **you must include your specific aims and hypotheses**. Your dataset must be "cleaned" before sending to her:

- Errors removed
- Missing data left blank (do not code as 99 or other numbers)
- All categorical variables need to be numerically coded
 - This is something the GRAs can help with
- Variable names need to be short, ideally one word (or word.word or word_word)
- Dataset should be in .csv (Excel). See <u>here</u> for an example dataset.
- Longitudinal data must be in "long" dataset format (see <u>here</u> for an example)
 - "Wide" datasets can be converted to "long" format using statistical software.
 - This is something the GRAs can help with

If you require power analysis, Dr. Kesler will need to know the minimum effect size you wish to be able to detect as statistically significant based on (in order of best to least optimal):

- Minimum effect size from your preliminary studies where the effect size matches the type of analysis that will be conducted for your study (e.g., Cohen's d for t-test, Cohen's f for ANOVA, Cohen's f² for linear regression, odd's ratio or AUC for logistic regression, correlation coefficient r for correlation, etc.)
- 2. Minimum effect size in the literature most closely resembling your study

- 3. Estimated minimum effect size based on other types of effect sizes (Cohen's d, OR, etc) from preliminary studies and/or relevant literature that don't match the type of analysis that will be conducted for your study
- 4. Arbitrarily chosen effect size category based on your general knowledge or experience with the variables of interest (small, medium, large usually choose small or medium)