

## ***Protocol for Submitting Data to Research Analysts***

### **1) Preferred protocol for unit-level liaisons to submit data:**

The preferred format would be raw data in an Excel or CSV (comma-separated values) document. It would be preferable if data could be arranged so that rows correspond to samples/students, columns correspond to fields/characteristics/variables, and the first field is the students' ID (if acquired).

The preferred method to submit data would be via e-mail (to both analysts, Gustav Wiberg and Fernando Miranda-Mendoza) with the file attached to the message.

### **2) Estimate of a range of time for turnaround:**

This will be somewhat dependent on the scope of the liaison's study, the research questions being asked, and when it is given to the analysis in the semester. Some realistic estimates would be:

- 5 - 10 business days for just raw data (w/o student IDs)
- 10 - 15 business days for raw data that needs to be cross-referenced with OpenBook (with student IDs)
- 15 - 20 business days for raw data that needs to be cross-referenced with OpenBook, follow-up analyses, and/or vague research questions.
- 20 - (infinity and beyond) business days for raw data that needs to be cross-referenced with OpenBook, follow-up analyses, and/or EXTREMELY VAGUE research questions. 😊

#### **Research Questions:**

Questions about what we hope to learn about data should be in mind from early in the six-stage process of assessment. What we hope to investigate about student learning as it relates to a particular Student Learning Outcome should shape the assessment tools we select or create at the very beginning.

In terms of research questions to convey to the research analyst, it is helpful if the analyst has some guidance as to what the liaisons are interested in trying to ascertain. Some guiding questions could be:\*

What are you interested in finding?  
What are you trying to measure?

If this still seems vague, I suggest they try to drill down on the question, "Are students learning?" There are a lot of ways to approach that question. It can be through a single course, a course sequence, a particular topic, or based on a dependent variable. Typically, the more specific of a question the quicker the turnaround.

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\*Please also consider the guidelines from the HWCAC Philosophy of Assessment (per the 2003-06 catalog), which says that the assessment process involves

“Using assessment information from both direct and indirect measures:

- a. To examine assumptions about learning
- b. To understand how, when, and where learning takes place.
- c. To identify in what areas and for which students learning needs to be improved.
- d. To encourage efforts to make changes in modes of instruction, program curricula, learning resources, and support services designed to improve student learning.
- e. To create and sustain an institutional culture in which it is the College’s priority to assure and improve the quality of education each academic program promises and offers.

### **3) Training for some basic things liaisons could do with their own data without depending on the research analyst:**

Liaisons are encouraged to approach me if they wish to partially (or completely) analyze data on their own. I will be glad to schedule one-on-one training/guiding sessions with them. I could introduce them to standard analytical techniques used to analyze typical assessment data. Also, I may point them to references if they wish to do some reading on their own.

### **4) What to expect from the research analyst:**

Depending on the research questions and/or specific requests, liaisons will receive a (typically Word) document with bullet points summarizing the findings from analyses. Typically, these bullet points will include numerical summaries (such as, averages, medians, correlations, etc.) and comments about statistical tests results (if any). They may also include some visualizations (such as bar graphs, boxplots, scatterplots, etc.). If any liaison wishes to have a specific visualization, they may indicate so in the initial message and I will try to accommodate their requests.