Tips for Data Analysis and Interpretation
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Below are some "quick tips" to help you in your analysis and interpretation of data reports related to institutional planning and decision-making. When trying to make sense of data, whether presented in tables, graphs, charts, or narrative form, consider the following:

1. **Trends**: Do you see overall trends in the data over time? For example, does it appear that enrollments or student performance or transactions have been increasing or decreasing over time? Have the figures risen or fallen steadily, or have there been significant ups and downs? What factors likely affected the overall trend, or those ups and downs? What overall conclusions do these trends suggest?

2. **Patterns**: Do you see patterns in the data? For example, is average class size or student performance or turnaround time usually higher in the spring semesters than in the fall semesters? Do clients in one group tend to do better than those in another? Is there a surprising concentration of students or employers or donors in just a few areas? What do these patterns suggest?

3. **Outliers**: Look for data points that appear to be quite different from the norm or what one might expect. Do these outliers have any significant meaning for the task at hand? What factors might explain them? Does there appear to be a problem with the data themselves? For example, if five times the number of degrees were awarded in a given discipline last year than in any previous year, was that dramatic rise due primarily to a new degree offered in that discipline? If the discipline is not offering any new degrees, as it likely due to an error in the data, or to some more substantive factor such as increased student demand for the program?

4. **Comparisons**: Where college-wide data or other comparison points, if any, are provided, how does each comparison illuminate the subject of interest? Does one discipline tend to have higher or lower success rates than the college average, or one feeder high school have higher or lower student success rates than the college average, or one vendor have a higher or lower complaint rate? Is the college's performance in a given area higher or lower than that of comparable colleges? What factors might account for such differences? Does the discipline or department or college or high school have unique challenges or strengths? Do those factors call for corrective action in college practices, initiation of stronger support services, or celebration of college successes?

5. **Data Breakdowns (Disaggregation)**: Consider these same elements when looking at data that have been broken down, or disaggregated, by subgroups (e.g., students by placement level, ethnicity, or other characteristics). Do the trends, patterns, outliers, or comparisons change significantly from subgroup to subgroup or from the whole? If so, what factors might account for those differences?

6. **Themes and Interactions**: When analyzing a large amount of narrative or textual information (e.g., survey comments, program review narratives), look for recurring themes and possible interactions. Do many comments point to the same issues on campus, or evaluate a given program favorably or unfavorably? Do multiple program reviews discuss certain needs or problems, or describe operations or initiatives that might reinforce or interfere with one another?

Based on your analyses of the data, draw conclusions about what they mean for the applicable level of planning or decision-making. For instance, what do the findings suggest about ways to improve institutional effectiveness or student learning or achievement? Do those changes apply to a specific program or unit, the whole institution, or somewhere in between? If actions are warranted, are they likely to require additional resources or not? These evidence-based observations and analyses should comprise the basis for goals, objectives, any necessary resource requests, and decisions intended to improve institutional effectiveness.

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