Data Collection and Analysis

Collecting data means putting your plan for collecting information into operation. You’ve decided how you’re going to get information – whether by review of records, observation, interviews, surveys, testing, or other methods – and now you have to implement your plan.

Why do we collect data?

- Data can provide credible evidence to show that your program/department/office is successful.
- It may uncover and address limitations.
- It helps with internal quality, efficiency, productivity, funding, etc.
- It shows that you are serious about improving your program/unit/organization.
- It helps us grow as an institution.

What do we mean by collecting data?

- Collecting information about your operation/program.
  - Administration of services/programs.
  - Processes involved in delivering services.
  - Efficiency/progress in meeting timelines/goals.
- Using your measures to collect good information.
  - Surveys, document records, logs, reports, tests/exams, evaluations, interviews, etc.
- Organizing data in ways that makes it easier to track, monitor, retrieve, and share.

When should data be collected?

- Data collection should start no later than when you begin your work or before you begin to establish a baseline or starting point.
- Data should be collected for a period of time in order to determine changes and trends.
- Data might be collected pre- and post an intervention to determine impact.
- In order to measure your program’s long-term effects, follow-up data should be collected for a period of time following the conclusion of your program.

Think about how information will be examined, and what comparisons will be made:

Will you want to provide descriptive information? Descriptive data might include:
  - Percentages (‘strongly improved’, ‘very satisfied’)  
  - Means, medians on examinations  
  - Summaries of scores on products, performances

Do you want to provide comparative information? Comparative data might include:
  - External norms, local norms, comparisons to previous findings
  - Comparisons to Division, College norms
  - Subgroup data (students in various concentrations within program; year in program)
What does it mean to analyze data?

• **Examining** data in ways that reveal:
  • Outcomes
  • Trends
  • Patterns
  • Relationships

• **Summarizing** data so that it can be reviewed and interpreted.
  • May include simple counting, frequencies, rates, and percentages.
  • May include statistical analysis, calculating mean/mode/median, differences, correlations, etc.
  • May include graphing, tables, etc. to visualize data patterns.

• **Comparing** actual results to previously determined goals and targets.
  • Did we meet the target?
  • Did we get close?
  • Did we go beyond?

• Looking at data to **identify changes** (marked increases, decreases) in the measures over time (weeks, months, semesters, years).
  • You may compare your data to previously collected data
  • You may compare your data to other groups’ data to draw some conclusions.
    • Previous surveys takers, student cohorts.
    • Peer institutions/schools.
    • Statewide figures, national data.

Analyzing data helps us determine:

• Patterns of strength and weakness
• Areas of success and areas in need of improvement
• Effectiveness and efficiency

*Data helps us to better understand our work and the impact it has on those we serve.*