

## Using Data in Youth Programs

***This article discusses collecting and using data in youth programs, with a particular focus on School to Career/Connecting Activities and related workforce development programs.***

A key part of successful program implementation is the ability to collect and use data in a way that enhances programming and directly benefits staff and customers.

This article focuses on five aspects of data management:

1. Collecting data from customers and co-workers;
2. Entering and extracting data into databases, spreadsheets and other formats;
3. Analyzing and presenting data;
4. Engaging others in using data;
5. Planning and decision making about data management.

The article also defines five data management skills:

1. Data integrity skills;
2. Software skills;
3. File management skills;
4. Data presentation skills;
5. Planning and design skills.

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### ***(1) Collecting Data***

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***How often have you*** sat with a customer with a blank form in front of you and a pen in your hand and felt like apologizing for the time you were about to devote to gathering information? Or have you sat in front of a blank computerized form and wanted to apologize that the form was going to take up valuable time? Ideally, data collection should never be a burden of “filling out forms” but should be a useful (or at least pleasant and effortless) part of the program design.

Keys to successful data collection include:

***Understanding the “positive moments” in each aspect of data collection.*** For example, as you interview an employer you may be writing down basics like addresses and phone numbers, but you are also gathering interesting information about the job description of the job/internship opportunity they are providing and engaging in an interesting conversation about their expectations and about the skills and tasks that are unique to that job or to that career area.

You can also gather information from employers about ways that they would like to connect with your program – for example they may want to be listed as a potential guest speaker, job shadow host or career fair participant.

As you interview students, while you are gathering basics about their name and contact information, you might also have the opportunity to ask about their career interests and their interest in various programs and activities.

***Finding ways to make data collection easy.*** Can students fill in forms while waiting for a meeting with you? Can students type some basic information into an available computer (even if it is later printed out and re-entered)? Can employers use the new online Work-Based Learning Plan to provide job descriptions and skills/tasks?

**Knowing what information is required and what is optional.** Use the database manual or the notations on the database screens to find out what information is required for reporting and which information is simply recommended for your own local use. Talk with others in the region to agree about what information you will gather. Be aware that your need for data should never lead you to ask intrusive questions of customers, and if any data collection feels uncomfortable, find out what information is really required and create a strategy for comfortably obtaining that data.

**For example,** race/ethnic group information is not required for School to Career/Connecting Activities reporting, but it is needed for some related programs, and so therefore it is one of the fields in the School to Career database. It is marked in italics, signaling that it is optional on the statewide level for Connecting Activities reporting, but may be required locally for other reporting. Many students belong to nationalities or ethnic groups that do not fit neatly into the standard list of racial groups, and many students come from mixed racial and ethnic backgrounds and therefore fit into more than one group. Recent directives from the federal Office of Management and Budget (OMB) and the Census Bureau clarify that if a publicly-funded program collects information about race/ethnicity, program participants should always be allowed to self-identify, and should never be told that they need to fit into a particular category.

**Determining what extra information will make data collection valuable.** The database provides space for a variety of optional data elements that can transform the data into a more useful resource. For example, in the Employer screen, you can record information about how employers would like to connect with your program, such as willingness to be in a guest speaker bureau, job shadow host or career fair participant. In the Activity screen, you can provide notes about each activity or event you sponsor, creating a record of program accomplishments that you can use later when writing grants and proposals. An optional layout in the student participation file provides space for recording up to three career interests from a career interest inventory. By exploring various layouts in the database, you may find other optional data elements that would be interesting and valuable to collect.

**FOR DISCUSSION:** How can data collection be managed so that it is a valuable and comfortable part of your program? Are there any data elements that you collect that are difficult or awkward? What is the purpose of these data elements? Are they required? Are there additional elements that you would like to collect that will make the data collection process more valuable and useful?

**NOTES:** In the School to Career/Connecting Activities program, **definitions and guidelines** are available in the annual RFP document, in the database manual, and on the database screens. **Data collection forms** are available for printing online and from the database.

#### **KEY SKILLS:**

##### **Data integrity skills:**

- Understand program definitions and guidelines;
- Identify sources of data;
- Identify the best paper forms or computer screens for collecting data;
- Develop clear channels of communication;
- Develop routines that facilitate working with customers and co-workers to collect information.

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## **(2) Entering and extracting data**

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**How much time** do you allocate each week to entering data for your program? How much time do you allocate at the end of the month or quarter for reviewing and cleaning the data? And how much time do you spend looking at the data, extracting data for special reports or projects, or sorting and printing lists for use in your program?

All types of organizations, including schools, nonprofit organizations, state agencies and businesses are devoting more time than in the past to data collection and data management. Some interesting trends:

- Over the past few decades, as technology has made it easier to enter, store and extract data, more time and resources are being devoted to data management. (This is an example of “elastic demand” in economics. As new technology makes data collection easier and less expensive, organizations “demand” more information, thereby increasing total time and resources devoted to data management.)
- Increasingly, data collection and data management are part of everyone’s job description, so it is difficult to measure total time spent on data management across an organization.
- The School to Career/Connecting Activities RFP suggests that up to 5% of the staff budget can be allocated to data management, but each region has a different approach to allocating staff time to data management, making it difficult to estimate typical patterns or statewide averages.

**FOR DISCUSSION:** Are you comfortable with the amount of time dedicated to entering data, cleaning/editing data, extracting data from the database and looking at and using this data? Is data management part of all staff’s job description or managed by just one or a few staff? Do you have one or more staff who are comfortable with necessary software skills and file management skills?

### **KEY SKILLS:**

#### **Software skills:**

- Use the database screens to enter records
- Use the software to find records, sort, and print
- Use different layouts to review and “clean” records
- Use built-in forms and reports
- Explore the software and learning new commands
- Know how (and when and why) you can move data into Excel or Access
- Develop new layouts and calculations in FileMaker Pro, use formulas in Excel, and/or write queries in Access

#### **File management skills:**

- Install database files
- Create or remove shortcuts from the Desktop and/or the Start menu
- Import and export data
- Email files
- Download files from email or from websites
- Make copies of files and create new folders
- Explore folders and files
- Maintain backup files

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### **(3) Analyzing and Presenting Data and (4) Engaging Others in Using Data**

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The workshop exercise “Creative Uses of Data” (at the end of this article) presents a checklist that asks staff to identify the **roles that they play in their jobs** – such as advising, advocating, measuring and motivating; **who they work with** – such as students, administrators, employers and teachers -- and **what projects or programs** they work with – such as internships, career advising or career fairs.

The exercise asks staff to use the items from the checklist to write a goal for creatively using data. For example, they may write “I would like to use data to help me motivate and advise students” or “I would like to use data to help me plan and organize career fairs and job shadow days.”

The purpose of the exercise is to encourage people to think creatively about using data to enhance their programs. Possible examples of creative data use for School to Career/Connecting Activities programs could include:

- **Using data to orient students or employers about work-based learning experiences.** An analysis of skill gain data from past Work-Based Learning Plans can be used in presentations to students and/or employers about the goals of the work-based learning experiences.
- **Using data to generate ideas for classroom projects.** A summary of the skills identified in Work-Based Learning Plans can be used in a workshop with teachers to help brainstorm ideas for career-related projects in their classrooms.
- **Using data to teach students.** A profile of the employers who provide work-based learning experiences in your region (by size, type, industry group) can be used in a classroom as a “conversation starter” about the local economy.

**FOR DISCUSSION:** Have you explored the various reports and layouts available in the database? Do you have ideas about ways to use data creatively in your program? Do you encourage staff in your program to brainstorm about uses of data? Do you present data when you have meetings with employers or advisory boards? Do you have suggestions about reports that should be added to the database?

#### **Key Skills:**

##### **Data presentation skills:**

- Deciding on creative ways of using data;
- Determining what data might be interesting
- Determining what audience might be interested
- Deciding how to relate your data to the audience;
- Presenting the data:
  - Creating attractive tables, lists and graphs in Word, Excel, PowerPoint or other office software programs;
  - Moving data from one software program to another in order to create reports and presentations;
  - Explaining the data, verbally and in writing, including sources of the data; definitions; summary; and implications;
  - Talking to an audience about data;
  - Engaging an audience in looking closely at data to open up conversations.

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## ***(5) Planning and Decision Making***

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Do you keep notes about all of the activities and programs you work on in your database? Do you create spreadsheets to keep track of projects you are working on? Do you use your database to maintain a mailing list of employers? Have you studied the various options for creating Work-Based Learning Plans, including paper, the PC database screens, the Word version of the form, and the new online version?

Every organization needs to continually make decisions about how to manage data. Certain aspects of data management are pre-determined, since most organizations have particular databases that are required for reporting. However, there are many choices that still need to be made. A variety of data management choices are available for School to Career/Connecting Activities:

1. The School to Career Database was designed to be a “full-service” database for managing school to career programs. It provides screens for managing employer information and mailing lists, student information and activity histories, Work-Based Learning Plans, plus information about all types of activities and events sponsored by your program. While some database users focus only on the required data entry and reporting, many database users use this database for a variety of purposes, including generating mailing labels, printing employer lists, creating “skill gain” reports and more.
2. With the introduction of the new Work-Based Learning Plan (WBLP) two years ago, we offered several choices about how to create, store and print WBLPs. Choices include a paper form, a Word document or database screens (within the School to Career database). Most recently, a pilot online WBLP was created and is now available.
3. The pilot online WBLP application also includes a placement screen and will soon include activity and employer screens. It was piloted by five YouthWorks sites last summer and is now being piloted by several regions / schools.

### **For Discussion:**

- How much extra or optional information should be kept in your database?
- How should you manage mailing lists, phone lists, activity lists or other information?
- When should you create a spreadsheet or other document for a project and when should you store information in your database?
- Do you want to request additional fields or reports in the database to accommodate a local need?
- In situations where various database programs or software formats are available (such as the WBLP) how do you choose the best option for your program?

### **Key Skills:**

#### ***Planning and design skills:***

- Understanding the benefits and limits of various types of databases, including PC and online databases;
- Understanding the benefits and limits of databases, spreadsheets, word processing documents, and office software for storing and using information;
- Knowledge of database design concepts, including relational database design; (table structure; one-to-many relationships);
- Ability to analyze workflow and decide on the best methods for efficiently storing and using all types of information.

Creative Uses of Data - Workshop Exercise

**1. Use the checklists below to describe your job:**

Which of these words best describe what you do?

- |                                   |                                   |                                   |                                  |                                    |
|-----------------------------------|-----------------------------------|-----------------------------------|----------------------------------|------------------------------------|
| <input type="checkbox"/> advise   | <input type="checkbox"/> design   | <input type="checkbox"/> inspire  | <input type="checkbox"/> nurture | <input type="checkbox"/> supervise |
| <input type="checkbox"/> advocate | <input type="checkbox"/> evaluate | <input type="checkbox"/> lead     | <input type="checkbox"/> plan    | <input type="checkbox"/> support   |
| <input type="checkbox"/> analyze  | <input type="checkbox"/> fund     | <input type="checkbox"/> manage   | <input type="checkbox"/> place   | <input type="checkbox"/> teach     |
| <input type="checkbox"/> budget   | <input type="checkbox"/> guide    | <input type="checkbox"/> market   | <input type="checkbox"/> present | <input type="checkbox"/> train     |
| <input type="checkbox"/> coach    | <input type="checkbox"/> inform   | <input type="checkbox"/> measure  | <input type="checkbox"/> promote | <input type="checkbox"/> write     |
| <input type="checkbox"/> decide   |                                   | <input type="checkbox"/> motivate | <input type="checkbox"/> report  |                                    |

With whom do you work?

- |  |                                   |                                      |
|--|-----------------------------------|--------------------------------------|
| <input type="checkbox"/> administrators  | <input type="checkbox"/> mentors  | <input type="checkbox"/> students    |
| <input type="checkbox"/> advisory boards | <input type="checkbox"/> parents  | <input type="checkbox"/> supervisors |
| <input type="checkbox"/> counselors      | <input type="checkbox"/> staff    | <input type="checkbox"/> teachers    |
| <input type="checkbox"/> employers       | <input type="checkbox"/> sponsors | <input type="checkbox"/> volunteers  |

What do you work on?

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> annual plans             | <input type="checkbox"/> lesson plans       | <input type="checkbox"/> reports          |
| <input type="checkbox"/> brochures                | <input type="checkbox"/> meetings           | <input type="checkbox"/> resource centers |
| <input type="checkbox"/> budgets                  | <input type="checkbox"/> newsletters        | <input type="checkbox"/> special events   |
| <input type="checkbox"/> college and career fairs | <input type="checkbox"/> portfolios         | <input type="checkbox"/> staff meetings   |
| <input type="checkbox"/> conferences              | <input type="checkbox"/> presentations      | <input type="checkbox"/> student projects |
| <input type="checkbox"/> externships              | <input type="checkbox"/> program of studies | <input type="checkbox"/> syllabi          |
| <input type="checkbox"/> internships              | <input type="checkbox"/> proposals          | <input type="checkbox"/> websites         |

**2. Use the words you selected to describe a goal.**

*I would like to use data to help me...*

\_\_\_\_\_, \_\_\_\_\_ **and** \_\_\_\_\_ **... for the ...**  
 \_\_\_\_\_, \_\_\_\_\_ **and** \_\_\_\_\_ **... that I work with.**