

## Tip Sheet

## How to Choose the Most Efficient Data Entry and Analysis Tools for Processing Evaluation Surveys

Unless you need to use sophisticated statistical analysis techniques, or process very large volumes of survey data, it is not necessary to spend lots of money on data entry and analysis. Each method has advantages and disadvantages, and implications for sustainability. Table 1 describes several different data entry methods commonly used in local evaluation research, and Tables 2 and 3 describe tools for data analysis. Figure 1 illustrates some possible combinations of data entry and analysis methods.

**Table 1: Data Entry Methods**

Method	Advantages	Disadvantages	Situations when it makes sense to use this method	Skill level and time	Cost	Potential for sustainability within local organizations
Microsoft Excel	<ul style="list-style-type: none"> <li>▪ Readily available</li> <li>▪ Easy to link to other data in Excel or Access, and to create charts/graphs</li> <li>▪ Easy to transfer into SPSS or other statistical analysis software</li> <li>▪ Easy to clean your data</li> </ul>	<i>Interface may not be as easy as online survey tools</i>	When you are going to transfer the data into SPSS or other analysis software, or when you plan to analyze the data using Excel or Access	Set up: Medium Entry: Low	No cost (assuming organization already has Excel)	Medium
Survey Monkey* <i>When entering hard-copy surveys, use “manual data entry” button in “collect responses” tab (or, for multiple data entry staff/volunteers, select “yes, allow multiple responses per computer” in Collector Settings and do kiosk-style entry)</i>	<ul style="list-style-type: none"> <li>▪ Readily available and widely used</li> <li>▪ Easy to use for entry and basic analysis</li> <li>▪ Can download data into Excel</li> <li>▪ Can get cross-tab function at Monthly Pro rate (cheaper than SurveyGizmo)</li> <li>▪ Prevents some sources of data errors and reduces time spent on data cleaning</li> </ul>	<ul style="list-style-type: none"> <li>▪ Must pay for subscription for some features (101+ responses, 11+ questions, filter and cross-tab, text analysis)</li> <li>▪ Can’t collapse categories or do other data set modifications</li> </ul>	Almost any situation, particularly when some surveys will be collected online (can combine hand-entered and online data)	Set up: Low/Med Entry: Low	Basic: Free Select: \$204/year Gold: \$300/year	High

Table 1 continued

Method	Advantages	Disadvantages	Situations when it makes sense to use this method	Skill level and time	Cost	Potential for sustainability within local organizations
Survey Gizmo* <i>When entering hard-copy surveys, make sure "duplicate response protection" is turned off, and then do kiosk-style entry</i>	<ul style="list-style-type: none"> <li>▪ Readily available</li> <li>▪ Easy to use for entry and basic analysis</li> <li>▪ Can download data into Excel and SPSS</li> <li>▪ Nonprofit discount</li> <li>▪ Free option handles higher volume/more questions than SM's free option</li> <li>▪ Wide variety of summary report format options</li> <li>▪ Prevents some sources of data errors and reduces time spent on data cleaning</li> </ul>	<ul style="list-style-type: none"> <li>▪ Must pay for subscription for some features (251+ responses per month, email invitation system, cross-tabs); Must get Enterprise rate to get cross-tab function</li> <li>▪ Can't collapse categories or do other data set modifications</li> <li>▪ Can't "edit" cases (for data cleaning)</li> </ul>	Almost any situation, particularly when some surveys will be collected online	Set up: Low/Med Entry: Low	Basic: Free Personal: \$19/mo Pro: \$49/mo Enterprise: \$149/mo	High
Scanning	<ul style="list-style-type: none"> <li>▪ Fast, labor-saving way to enter data</li> <li>▪ Can import directly into Excel or SPSS</li> </ul>	Expensive initial investment in software and hardware	<ul style="list-style-type: none"> <li>▪ Large volume of surveys (1,000+)</li> <li>▪ Repeating same survey or items over time</li> </ul>	Set up: High Scanning: Low, Fast	ReMark Office OMR software: \$995 (or \$795 with discount)** Scanner: \$350+	Low (relies on staff knowledge of software and hardware)
Professional data entry firm (such as ACS Computer Services Corp. in Columbus, 614-351-8298) (2009)	<ul style="list-style-type: none"> <li>▪ Don't need to rely on own staff time or volunteer help</li> <li>▪ High-quality data entry (can do "double-key" quality checks)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cost</li> <li>▪ Turn-around and logistics could be an issue</li> </ul>	Large volume of surveys and/or long or complex surveys	Low; turn-around time may be an issue	ACS price quote for entering 1,000 surveys with 55 questions each= \$620 (\$0.62 per survey)	Low (relies on availability of funding)

<b>Data collection methods that do not require separate data entry</b>	<b>Advantages</b>	<b>Disadvantages</b>	<b>Situations when it makes sense to use this method</b>	<b>Skill level and time</b>	<b>Cost</b>	<b>Potential for sustainability within local organizations</b>
Online survey via email, computers in schools, or kiosk in waiting room or at event	No need for data entry	<ul style="list-style-type: none"> <li>▪ May be difficult to capture adequate numbers of respondents</li> <li>▪ Online surveys via email not accessible for all</li> </ul>	<ul style="list-style-type: none"> <li>▪ Kiosk: Computers are available</li> <li>▪ Email: All potential respondents have email and internet access</li> </ul>	Low/med.	See pricing for Survey Monkey and Survey Gizmo above	Medium (relies on availability of computers)
CATI (computer-assisted telephone interview), or CAI (computer-assisted interview) with laptops	No need for data entry	<ul style="list-style-type: none"> <li>▪ CATI: Some populations not accessible by phone</li> <li>▪ CAI: In-person interviews very resource-intensive</li> </ul>	<ul style="list-style-type: none"> <li>▪ Evaluating a large project with high resources</li> <li>▪ Using a long, complicated survey instrument</li> <li>▪ Need to survey non-English speakers/ESL and/or non-literate respondents</li> </ul>	Very high (hire survey firm)	Very high (\$10,000+)	Low (relies on availability of funding)

\*Survey Monkey is listed here because it is widely used by local IPV prevention programs in Ohio. Survey Gizmo is a similar online survey service. To get more information about the features and quality provided by these two sites and several other online survey sites, review the side-by-side comparison/review of web accessibility prepared by the Web Accessibility Center at The Ohio State University at: [http://wac.osu.edu/workshops/survey\\_of\\_surveys/](http://wac.osu.edu/workshops/survey_of_surveys/)

Note that online survey sites periodically update their features; some of the information presented in this table may be outdated at the time you are reading it. Survey Gizmo features were last reviewed in 2009 and Survey Monkey features were last reviewed in 2011.

**Table 2: Data Analysis Methods**

<b>Method</b>	<b>Advantages</b>	<b>Disadvantages</b>	<b>Situations when it makes sense to use this method</b>	<b>Skill level and time</b>	<b>Cost</b>	<b>Potential for sustainability within local organizations</b>
Survey Monkey or Survey Gizmo summary report functions	Cross-tabulation and filter capabilities (for example, you can compare responses for males and females side-by-side as a cross-tab, or filter out males so that you only look at results for females)	<ul style="list-style-type: none"> <li>▪ Little control over data (cannot collapse categories, re-code, compute, etc.)</li> <li>▪ Cannot upload Excel data into online data set (for example, to merge data entered in Excel with data collected online)</li> </ul>	When you only need to run basic frequencies and cross-tabulations, and when your data are already entered onto the site	Low/Med., fast	See pricing information above	High
Excel (**see resources below for instructions in how to run analysis in Excel)	Readily available, low cost	“Clunky” and time-consuming to set up analysis	When you have data already entered into Excel and have strong Excel skills	Initial set up: High Ongoing use: Med	No cost (assuming already have Excel)	Med/Low (relies on staff skills)
StatCrunch.com (online analysis tool)	<ul style="list-style-type: none"> <li>▪ Can easily import data from Excel</li> <li>▪ Low cost and quick</li> <li>▪ Can run statistical tests (although interface is a bit clunky)</li> </ul>	Output interface is very minimal (variables and values are not labeled)	When you have your data in Excel and quickly want to run basic frequencies and cross-tabs	Med, fast once you are familiar with it	\$12 for 6 months, \$22.50 for 1 year	Med
MyStat (free student software available at <a href="http://www.systat.com/Products.aspx">http://www.systat.com/Products.aspx</a> )**	<ul style="list-style-type: none"> <li>▪ Can run statistical tests (although not as advanced as SPSS or SAS)</li> <li>▪ Free</li> <li>▪ Can import data from Excel</li> </ul>	<ul style="list-style-type: none"> <li>▪ Will only read up to 100 variables</li> <li>▪ Requires high-level skills</li> </ul>	When you need to run statistical tests (t-tests, chi-squares, regression, etc.) and/or need to be able to modify your dataset	High, very fast for experienced user	Free	Med/Low (relies on high-level skills)
SPSS, SAS, or other professional statistical software	<ul style="list-style-type: none"> <li>▪ Can run statistical tests</li> <li>▪ Have a great deal of control over the data and</li> </ul>	<ul style="list-style-type: none"> <li>▪ Expensive</li> <li>▪ Requires high-level skills</li> </ul>	When you need to run statistical tests (t-tests, chi-squares,	High, very fast for experienc	SPSS software price: \$1,799	Low (relies on expensive software and

	flexibility <ul style="list-style-type: none"> <li>▪ Can handle large data sets</li> <li>▪ Can import data from Excel</li> </ul>		regression, etc.) and/or need to be able to modify your dataset	ed user		high-level skill and/or consultant)
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\*\*For information about MyStat analysis software and ReMark Office scanning software are being used in Ohio, contact evaluator and trainer Jerry Bean, The Evaluation Support Group, Columbus, 614-848-5134.

See also: Epi Info public domain software at <http://wwwn.cdc.gov/epiinfo/>

\*\*\*Instructions for analyzing data using Excel can be found in the following resources:

- *How to Manage and Analyze Data for Outcome-based Evaluation, Section III: Using Excel for Data Analysis*; Organizational Research Services, Inc.; available at: [http://www.organizationalresearch.com/publications\\_and\\_resources.htm](http://www.organizationalresearch.com/publications_and_resources.htm)
- *Using Excel for Analyzing Survey Questionnaires*; University of Wisconsin-Extension; available at: <http://learningstore.uwex.edu/Using-Excel-for-Analyzing-Survey-Questionnaires-P1030C0.aspx>
- *Excel for Dummies*, and *Statistical Analysis with Excel for Dummies*; available at your local or bookstore or Amazon.com

Note that online survey sites periodically update their features; some of the information presented in this table may be outdated at the time you are reading it. Survey Gizmo features were last reviewed in 2009 and Survey Monkey features were last reviewed in 2011.

**Table 3: What kind of analysis do you need to do?:**

**Choose an analysis tool that can easily produce the kind of information you need**

✘ Not possible

☹ Possible, but lower usability/functionality

☺ Possible, with high usability/functionality

Analysis Tool/Software	Basic functions		More complex functions	
	Frequencies and cross-tabs (number and percent of respondents who reported each response option)	Averages (means) and medians	Statistics such as Chi-Square test, T-tests, ANOVAs, standard deviations, correlations, etc.	Flexibility to collapse categories, recode variables, compute scores, and other data manipulation/data set modifications
Survey Monkey summary report function	☺ Cross-tabs only possible with Select or higher account type	☹ Means possible for some question types ✘ Medians not possible	✘	✘
Survey Gizmo summary report function	☺ Cross-tabs only possible with Enterprise or higher account type	☺	✘	✘
Excel	☹	☺	☹	☹
StatCrunch.com	☺	☺	☹	✘
MyStat	☺	☺	☺ Some more advanced functions not available	
SPSS	☺	☺	☺	☺

Note: The above ratings are based on the author's personal experience with Excel, StatCrunch, SPSS, and Survey Monkey, and a review of the Survey Monkey, Survey Gizmo, and MyStat websites as of June 2009. Please check with the specific websites and software companies for complete descriptions of their available functions. Survey Monkey features were updated in 2011.

Figure 1: Possible data processing pathways from hard copy surveys

