Case Study: One Way to Track ROI on Facebook Ad Spending

*I have used random numbers throughout for the sake of clarity.

At every program, we collect a brief paper survey from attendees. For weekly recurring programs, like storytimes, we hand out the survey quarterly.

We ask two questions, the first of which is:

How did you hear about this event? Please check all that apply.
- ☐ Event calendar on mesalibrary.org
- ☐ Library newsletter – print
- ☐ Library newsletter – digital
- ☐ Facebook
- ☐ Twitter
- ☐ Other (please specify): _____

Over the course of a year, we collect tons of data that looks something like this:

How did you hear about this event? Please check all that apply.

☐ Event calendar on mesalibrary.org	1000
☐ Library newsletter – print	900
☐ Library newsletter – digital	150
☐ Facebook	185
☐ Twitter	10
☐ Other (please specify): _____	1300

You'd be surprised at how many people list "Mom" under the "Other" option. Way to go, moms!

The library also collects statistics on the total number of program attendees each month. At the end of the year, we know that approximately 50,000 people attended a library program last year.

Lastly, we track how much we spend boosting event posts or creating ads on Facebook.

To recap, we have three data sets at the end of the year:
- Where people heard about our events
- Total library program attendance
- Total spending on promoting ads

How can we use all of this together? First, we need to figure out what percentage of survey respondents heard about the survey on Facebook.

% Respondents who heard on Facebook = # who heard on Facebook / Total survey responses

% Respondents who heard on Facebook = 185 / 3545

% Respondents who heard on Facebook = .0521

% Respondents who heard on Facebook = 5.2%

5.2% or .0521 of survey respondents heard about the program they attended on Facebook.

Next, we need to do some estimation. We'll use the number from our first step to calculate how many of the total program attendees heard about the program on Facebook.

Total # of attendees who heard on Facebook = % heard on Facebook * Total # attendees

Total # of attendees who heard on Facebook = .0521 * 50000

Total # of attendees who heard on Facebook = 2600

2600 total program attendees heard about the program they attended on Facebook.

Finally, let's say we spent $500 on advertising events on Facebook last year. Using the number of total program attendees who heard about the program they attended on Facebook, we can calculate how much we spent on Facebook per attendee.

$ per attendee = Total $ Spent / Total attendees who heard about event on Facebook

$ per attendee = $500 / 2600

$ per attendee = $0.19

Or, put another way, for every $1.00 we spend on Facebook advertisements, we're seeing approximately 5 attendees to our programs.

Not bad! You could compare this to money you spend on a print calendar or other advertising avenues in the same way.

Lastly, it's good to ask, "how confident can I be that my sample size is big enough?" Simply put, we need to make sure we have enough survey responses to have confidence in our estimations. We aren't doing a scientifically sound study (there are a lot of factors that could influence who answers a survey and who doesn't), but it's still good to know.

The easiest thing is to ask the internet. I like this **Find Confidence Interval** calculator from [The Survey System](). It's worth reading through their definitions—which are clearer than I can hope to communicate—before using the calculator.