

USING CROSS TABS

Sometimes it is useful to look at how two questions or two characteristics relate. For example, the Tobacco Free Coalition was interested in knowing if particular activities that youth participated in made a difference in whether they felt better equipped to work on other public policy initiatives in the community. On their survey, Q1 asked youth which activities they had participated in and Q4 asked them to what extent they felt better equipped to work on other policy initiatives. *When you look to see how two characteristics relate to each other, it is called a cross tabulation or cross tab.*

Cross tabulation can be defined as a combination of two (or more) frequency tables arranged so that each box in the new table represents a unique combination of values (<http://www.statsoft.com/textbook/stathome.html>).

To conduct this analysis, construct a table like the one below. In this example, Q1 information is placed in the rows on the left side of the table with a *YES* (participated in the activity) and *No* (did not participate in the activity). Q4 goes across the top with each response option (not at all, some, quite a bit, a great deal) as a different column. Then, look at each individual questionnaire. You need to look at the responses for Q1 and Q4 simultaneously. Place a tick mark in the appropriate box. For example, if the respondent checked that she participated in the activity (preparing and disseminating information packets) and checked Quite a bit to Q4, then you'd place a tick across from *Yes* in the box under Quite a bit. Continue this process until you have recorded all the data for each respondent.

Responses for 10 youth participants:

Q1 a	Q4			
	Not at all	Some	Quite a bit	A great deal
YES	/		////	///
NO		//		

Convert the tick marks to frequencies and percentages in each box, as in the table below.

Q1 a	Q4			
	Not at all	Some	Quite a bit	A great deal
YES	1, 10%	0	4, 40%	3, 30%
NO	0	2, 20%	0	0

Question 4 allows you to see whether youth think their work in the campaign will help them work on other policy change initiatives. This question was particularly important for the Tobacco Free Coalition because it expects its work will help youth become more engaged citizens, working to build a strong, healthy communities. The coalition had hoped that at least 50% of the participants would respond with "Quite a bit" or "A great deal." The data show that the coalition met its goal.

From the cross tab, the coalition sees how participation in each policy activity relates to the respondents' perceptions regarding how prepared they are to work on other public policy initiatives in the community. For example, the table shows that of the eight people who participated in preparing and disseminating information, four felt "Quite a bit" prepared and three felt "A great deal" prepared. In contrast, of the two respondents who did not prepare and disseminate information, neither felt "Quite a bit" or "A great deal" prepared for other public policy initiatives.

NOTE: For larger numbers of respondents, cross tabulations are better handled using Excel. See pages 23–26 in *Using Excel for Analyzing Survey Questionnaires* (G3658-14) [Leahy (2004)]; Also, see <http://www.schooldatatutorials.org>

Adapted from Handout 34, Unit 6, *Building capacity in evaluating outcomes*.

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