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Baseline Data for Your Program?

Abstract

Collecting baseline data is an integral part of evaluation. Understanding how different Extension programs are designed and delivered can suggest different sampling plans to collect baseline data.

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When considering an evaluation strategy for a state or multi-county program, one of the initial steps program planners should consider is how to collect baseline data. Baseline data establishes a basis for:

- Comparing what was happening before the program with what happens after and
- Extension to claim credit for impact.

When program planners have a state or multi-county perspective, they have the opportunity to develop a broader based sampling plan to collect baseline data. Sampling can reduce the burden on Extension educators and program participants, yet provide a representative profile of the target audience.

How program planners should sample can depend on the design of the program and how the program is delivered. Below are two typical Extension program models and a sampling plan for each. Choose the model closest to your program, and consider the sampling plan.

Extension Program Model #1

Program Characteristics

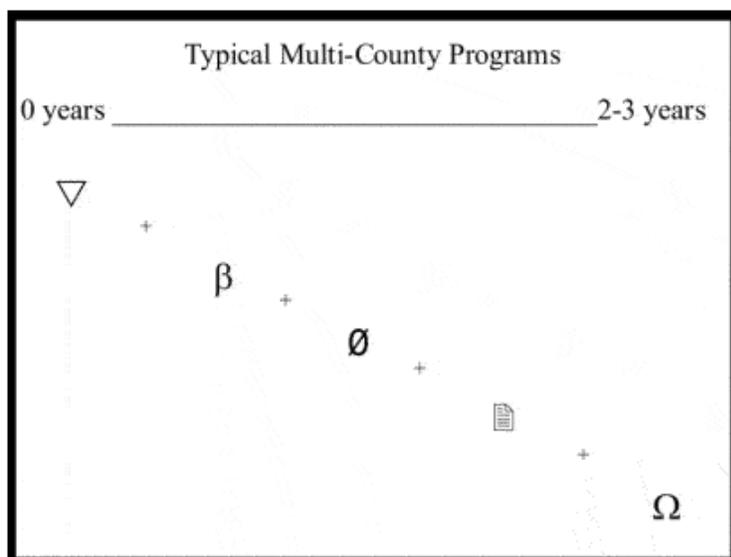
- The target audience is typically limited in the area, perhaps 100-900 persons.
- Over a 2-3 year period, a series of educational activities are conducted for this target audience.
- The educational activities feature different aspects of the subject matter. Each educational activity in the series has new educational objectives related to immediate impacts, but taken together across all activities, the objectives combine to achieve an extended impact. In a calf and heifer program, for example, the first educational activity may center on calf housing, the second on calf nutrition, the third

on calf health, but all are focused on reducing calf mortality, the extended impact.

- The series of educational activities is directed to the same specific individuals in the limited target audience (for instance, dairy farmers in a multi-county area).

Figure 1.

Extension Program Model #1. The diversity of symbols indicates various parts of program over time that, added together, comprise one large program. It indicates a the lack of repetition of the same program.



- "Complete" learning of all skills, knowledge, and practices within the Extension program experience by the participants does not occur in a short time span, as in some programs, because the educational activities are spread over time.
- The target audience is limited enough so that there is likely to be contact information available, for instance, swine producers or childcare providers. This list provides the basis for sampling.

Examples of This Type of Program

- Agronomic Production and Management Practices (Covers variety selection, planting dates, rates and methods, plant protection practices, fertilizers practices, harvest and storage practices)
- Tax Reform for Elected Officials
- 4-H Volunteers
- Dairy and many programs in agriculture

How to Collect Baseline Data

Before the program, collect baseline data by randomly sampling the target audience and measure their knowledge, attitudes, skills, practices, and relevant demographics. After the series of educational activities, return to the random sample; ask the same questions to evaluate the program's impact; then generalize to all program participants.

Advantages for Extension

- No short-term or on-site evaluation for impact has to be conducted during educational activities, reducing the evaluation burden on county educators and participants.
- Collecting baseline data before a program will highlight which topics need emphasis and which should be dropped.

Caveats

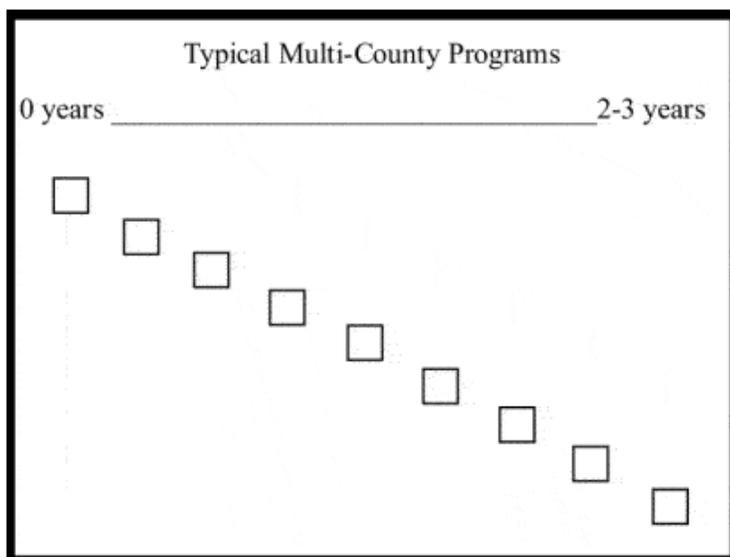
- Track who participates in the programs so you will have a measure of their exposure or involvement in the program. This is not difficult. (See <http://www.Extension.psu.edu/evaluation/pdf/TS68.pdf>)
- Over-sample when gathering baseline data. Some participants in the baseline study may not participate in the program or might not be in the post-program evaluation.
- Over a long duration, other factors besides Extension influence participants; a control group selected from a group not receiving the program will provide a measure of those influences.

Extension Program Model #2

- Program Characteristics
- The target audience is typically a large group, perhaps thousands, in the area. Many of these programs are for the general public.
- The educational program will take place within a short duration (1 - 6 wks).
- The educational program is repeated over and over again among groups to reach a large percentage of the target audience. Over 2-3 years hundreds, perhaps even thousands, of persons will participate in this program.
- In Figure 2 below, the educational program is repeated 9 times within the 2-3 year period, but could be repeated more.

Figure 2.

Extension Program Model #2. The square boxes indicate repetition of the same program over time. Each box is independent and separate from the other, just like a program that repeats itself many times.



- "Complete" learning within the Extension program experience takes place within a relatively short duration.
- The target audience is so large it is unlikely there would be a contact list, which necessitates a different sampling approach for baseline data than in Model #1.

Examples of This Type of Program

- Water Quality Workshops
- Cancer Prevention
- Estate Planning

- Pesticide Applicator Training
- Health and Nutrition

How to Collect Baseline Data

Before the program begins, consider first, the number of times the educational program will be repeated. Second, randomly select from which of these programs you will collect baseline. In the model above, you might randomly select the 3rd, 6th, and 9th times the program is conducted.

Over time, you want at least 200-300 participants, depending on your analysis and other factors. Once you figure the number of participants for an analysis, it is easy to figure the number of programs at which you will need to collect baseline data.

To evaluate the impact of the programs, go back to the same participants with a post-program measurement at the appropriate time.

Advantage for Extension

- Baseline (and later, evaluation) data do not need to be collected from everyone, but only from participants in randomly selected programs. The burden on county educators and program participants will be reduced dramatically.

Caveats

- If the program is conducted for diverse groups, be sure to consider this when sampling.
- Over a long duration, other factors besides Extension can influence participants; a control group selected from a group not receiving the program will provide a measurement of those influences.

Conclusion

There are many aspects to an evaluation strategy, of which collecting baseline data is an initial step. Understanding how different Extension programs are designed and delivered can suggest different sampling plans to collect baseline data. Planning how to collect baseline data for a state or multi-county program before it is launched can reduce the burden of collecting data for Extension educators and program participants.

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