

## Driving a Nonprofit Organization with Data: Tools and Processes for Cost-Effective Metrics

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*The requirement for nonprofit organizations to provide proof of effectiveness as well as operational efficiency is increasing. Many nonprofits believe they have neither the staff, the time, the expertise nor the money to establish meaningful evaluation systems. Described here is one growing organization's cost-effective approach to metrics including what tools are used and how these tools have scaled as the organization has grown.*

### Why and How to Collect Data

*Facing the Future* (FTF) is a 501(c)3 organization that creates and delivers programs and products for K-12 educators. FTF collects and uses metrics for three reasons:

1. To show proof of effectiveness
2. As market research to drive product and program development
3. To determine the most effective outreach and marketing tactics

Towards these ends FTF employs a number of cost effective tools described below. It's worthwhile to note that not all of these were employed at once; their use evolved over time and is described in the next section.

Survey Monkey: This online service is extremely user-friendly and inexpensive (a few hundred dollars a year). With Survey Monkey FTF designs its own surveys and then sends the survey out to client lists. FTF has used this service for large, yearly surveys where they contact thousands of people, and also for smaller more targeted surveys to specific sub-groups. Additionally they have used it in limited cases for teachers to administer pre- and post- tests to students. In the large surveys FTF includes a series of identical questions every year to establish trends, as well as sets of questions specific to new programs or outreach efforts.

Post-Workshop Evaluations: Educators participating in FTF workshops are asked to fill out evaluations at the end of the workshop, and include their contact information.

Organizational Website: To download FTF's free curriculum educators are asked to provide their email address and a few other pieces of data that is automatically linked to FTF's internal database. Users are assured that FTF doesn't sell their contact info, and can opt-out of any future contact.

Google Analytics: This free service is relatively easy to set up and provides rich data on website usage. FTF uses it to see if their outreach efforts and campaigns are effective by looking for ‘spikes’ in daily website traffic. FTF also uses it to show funders the geographical reach of their work, as it shows website hits at the country, state or city level. It is also effective for evaluating SEO (search engine optimization) efforts by showing from where website visitors come (other sites, key words searches, etc...).

Pre- and Post- Program Surveys or Tests: These are administered to students by a subgroup of FTF’s teacher users, usually with paper but occasionally online. The surveys are short and include questions that relate to the success of FTF’s programming’s impact on students. The data is collected and FTF conducts statistical analyses to determine program efficacy and any differences in demographic groups.

Individual Interviews: As necessary, FTF staff meet with their educator users or potential users for one-on-one meetings to collect information on potential or existing products or programs. Along these lines FTF has set up monthly Program Committee meetings with educators who give regular input on programs and plans. In-depth interviews are used in the cases where ‘richer’ information is needed; e.g., to describe the organization’s work to funders, or to develop full-length website features.

Opportunistic Data Collection: All FTF staff are trained to ask a short series of questions whenever they encounter folks who represent the target audience. This includes meeting educators at professional conferences and when they call or email the office.

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All of FTF’s data is fed into their database (currently Salesforce, previously a conglomeration of home-grown databases and Excel spreadsheets) by staff or by volunteers. Staff use the data as necessary depending on their function (e.g., curriculum development, marketing). For the once-a-year large Survey Monkey surveys, staff are asked to take time to review the survey with a particular eye towards what 3-5 pieces of actionable information fall out of it.

FTF didn’t start out with all of these tools; it took some time to establish the internal database, build client relationships and most importantly establish a culture of data-driven decision making. Described below are specific examples of how and at what point in time FTF utilized the various tools according to the 3 primary metrics focus points.

## **1. Metrics for Proof of Effectiveness**

Proving effectiveness requires that an organization has a good handle on two things:

1. What it is you’re trying to achieve; i.e. what are the critical measures of success, and
2. Who is ‘receiving’ the data- to whom are you proving yourself?

These are sophisticated questions, and just understanding these goes a long ways towards driving a business. Knowing what is success for an organization necessarily requires being very clear about the goals. Additionally it’s important to understand for whom these measures are targeted-

who is the data ‘consumer’? Typically in a nonprofit organization a key group of data consumers is the funders. For some funders individual stories about the impact of the work complete with pictures and testimonials is sufficient. Others will want to see numbers: ‘Who was affected and how were they affected?’ Obviously this is largely dependent upon the individual programs, who is being served, and what is reasonable in terms of data collection.

For FTF’s business in the education world they are required to evaluate effectiveness with teachers as well as with students. Student evaluation is more resource-intensive and was not measured at FTF initially. Here is the progression of measures that FTF employed as the organization grew:

### **Year 1 - 2**

Early evaluation efforts and metrics were focused on opportunistic data collection (e.g., discussions with teachers at workshops), simple output counting, and basic data storage and retrieval using a set of Excel spreadsheets.

- Quotes from teachers and students collected and stored in Excel
- Output data (# teachers and students reached) collected manually and stored in Excel

### **Year 3 - 4**

In this period FTF focused on continuing output data collection and added measures related to 1) both teacher and student effectiveness, and 2) new product development and marketing information. Information was collected using Survey Monkey with a growing list of clients as well as paper surveys.

- Online Survey Monkey surveys, sent to teachers on a list generated over time through direct contact
- Pre- and post- surveys given to a cohort of students by select teachers

### **Year 5 - 6**

This period marked a significant uptick in metrics sophistication with a revamp of the website and associated technological capabilities.

- Targeted online surveys sent to teachers in specific functions for market research
- Google Analytics established along with website upgrade
- Output data generated via a website/database linkage
- In-depth interviews for rich website features and donor communication

## Year 7 – Current

This period reflects the changing requirements of FTF’s client base, which now require more stringent student achievement data.

Target Audience: Success Metric	Tool
1. Teachers: # of teachers adopting FTF’s curriculum	<ul style="list-style-type: none"><li>• Survey Monkey</li><li>• Internal database linked to website</li></ul>
2. Teachers: Quality of curriculum	<ul style="list-style-type: none"><li>• Survey Monkey</li><li>• Anecdotes</li></ul>
3. Teachers: Beliefs about impact of curriculum on students	<ul style="list-style-type: none"><li>• Survey Monkey</li><li>• Anecdotes</li></ul>
4. Students: Change in knowledge, beliefs and actions	Pre- and Post- program surveys (paper and online)
5. Students: Classroom achievement	Pre- and Post- program tests on core subject mastery

## 2. Metrics for Market Research

As FTF develops new programs, products and services they continually solicit input from their target audience (educators). For major endeavors, such as establishing a new website or developing new curriculum products, FTF uses Survey Monkey as well as in-depth interviews to ask questions around what users are using and what they’d like to use or see. Educators are also solicited for their opinions at every stage of the product development cycle, including formal pilot testing of all new curriculum products.

In the case of the major website overhaul FTF started by asking a few questions related to what websites their constituents were currently using. This was followed up with surveys where groups of web features were described and educators were asked to rate them in terms of usefulness/importance. The new website design was largely driven by this information, and draft versions were critically reviewed by educators.

Curriculum development is also data driven. In the case of FTF’s Real World Math curriculum, over 100 math department heads, teachers, administrators and professional organizations around the country were sent an online survey asking what they wanted to see in new math curriculum. The result was a set of math offerings tailored to middle school math teachers.

In addition to new products, surveying has provided FTF with solid trend data that has been very useful in detecting important changes in the market. For example, every year on their annual survey FTF asked educators “What is the most important element to you when adopting supplemental curriculum?” For the first time in 2010 the top answer came back as “Alignment with state standards”. Prior to this FTF had not made efforts to align their programming with state standards, instead focusing on national standards. This information prompted FTF to invest in aligning all of their offerings with individual state standards.

A key element of the effectiveness of FTF's market research data is that their survey respondents include both current users of their programming as well as non-users, in approximately a 2/3- 1/3 split. This is extremely useful in determining why some educators are *not* using their products/services and what new things need to be developed in order to reach those constituents.

### **3. Metrics for Targeted and Efficient Marketing and Communications**

When and where to invest money and time into marketing programs are critical decisions in a resource-limited environment. FTF makes liberal use of Survey Monkey to find out where educators find out about new products or services, and where they go to get information. FTF's yearly online surveys consistently ask educators where they go to find new curriculum, how they use the internet, etc... Consistently popping up as major sources of new information for teachers are 1) Word of mouth from other teachers, and 2) Internet key word searches. In line with this finding FTF's outreach resources have focused on SEO (search engine optimization) for their website, and various ways to make it easy for teachers to pass along information about FTF to other teachers. A third element that consistently pops up as important for teachers is product catalogues. Based on this information FTF is investing in developing a product catalogue that will be available in both print and e-format for teachers.

As an 8-person office FTF has limitations on their ability to reach out to the very large (>4,000,000 people) target market, and their data collection has helped them efficiently deploy their outreach resources. In 2010 their staff reached over 1.5M students in every US state and over 100 countries with very efficient and targeted marketing efforts.

### **Output and Outcome Data: How Much is Enough?**

FTF collects information on both outputs and outcomes. Outcomes data is what everyone is interested in and is typically the most difficult and expensive to generate. Decisions about what kind and how much outcome data to collect are carefully weighed at FTF to determine if the benefits outweigh the cost. In many cases funders require less intensive outcomes data than one would think; particularly for startup organizations or programs they are sometimes willing to support a good idea and allow time for generating hard data around particular outcomes, or accept surrogate outcomes.

An important question for organizations working in education or similar endeavors is whether or not to generate longitudinal data. This is the holy grail to some extent, but it is beyond the capabilities of most small-medium nonprofit organizations. Tracking students, or anyone for that matter, over a period of years is expensive. One way to get around this is by using surrogate data. For example, FTF doesn't have data that shows that students participating in its programs are more likely years later to stay in school, go to college, stay out of jail, or vote. However, there are longitudinal studies (conducted by other groups) that show that students participating in meaningful service learning are more likely to stay in school, go to college, etc... FTF *can* show that their programs increase the participation in service learning programs. Ergo, a logical conclusion is that FTF's programs contribute to those larger positive outcomes.

Output data is easier to collect and can be compelling. For FTF the number of teachers reached each year is an extremely important metric. Key elements of FTF's business model are reach and scalability, so total numbers reached is extremely important. FTF collects email addresses through educator workshops with educators and via educators signing up for the e-newsletter. These folks are sent one survey each year asking them, among other things, if they have adopted FTF's curriculum into their classrooms. Additionally, the FTF website automatically populates their internal database with information about who downloads FTF products.

## Conclusion

There are a number ways to generate meaningful and useful metrics for nonprofit organizations that don't require excessive money, time or expertise. All that's needed is a thoughtful grasp of what needs measuring and an understanding of the ultimate data consumer. 