



Farmers Market Metrics: Data Entry Feedback

Since every new year is an opportunity for reflection, it seemed appropriate to review what the pilot markets in the [AFRI Indicators for Impact project](#) thought of year one. Specifically, we wanted to find out what they thought about their main task for the second half of the year – the data entry.

In this project, two kinds of data entry were made available in year one: 1) paper collection forms and 2) mobile entry using mini i-Pads, available free upon request to the nine markets. That data is uploaded to a portal designed for this project by project co-lead, the University of Wisconsin-Madison. It's important to note here that the addition of the portal was a mid-project decision made by the project's principal investigator, Dr. Morales. Because an off-line spreadsheet data entry system would still require the data to be entered into a common system at some point, his team decided to go ahead and create a simple website for entry that the markets could use throughout the year. The portal development had not been written into the grant budget, and so the development was done in-house at the University. Since it was meant to serve the markets in 2015 (and possibly 2016) use only, it was developed as quickly and as sparingly as possible in the spring and early summer of 2015, a process ably managed by UW Ph.D. candidate Lauren Suerth and the rest of the UW team.

iPads/mobile entry

The iPads allowed the markets the opportunity to enter data directly into the University of Wisconsin portal and eliminate the need for any paper collection instruments or added data entry. However, the iPads did not come with a data plan and markets would need available Wi-Fi to use them at market.

Markets could request up to three tablets for their use. There were no restrictions as to their use (meaning they were not tethered to the portal), if the markets also needed it to collect other data or use it for other managerial duties during the season..

It was assumed that the best use of the tablets would be to conduct the visitor surveys, but that they would also be quite useful for compiling and entering the visitor counts each collection day. At least one market also hoped to allow vendors to enter their own sales data in order to offer added anonymity to the process.

Four markets took the tablet offer and were shipped the number requested along with a user agreement from the University of Wisconsin.

AGREEMENT FOR ASSIGNMENT OF UNIVERSITY EQUIPMENT

USDA-AFRI Farmer's Market Metrics Project, conducted by UW-Madison and FMC

Market Name _____

Market Address _____

Date _____

You have been assigned University-owned equipment (listed below) to complete your duties pertaining to the project cited above, and, accordingly, you are temporarily assuming responsibility for the item(s).

It is understood that your market will use the equipment referenced herein for data collection and documentation purposes related to the project referenced above. If your market wishes to use the equipment with an existing wireless network, please do so. If your market needs to obtain special cellular phone service or other wireless access to be able to use the equipment for the purposes of this project, please secure such access and bear the cost of such access independently. UW-Madison will not sign agreements or provide payment for this aspect of use of the equipment.

Portal

Developing a useful and simple portal is not a task for the faint-hearted or those unfamiliar with wireframes or the delicate dance of sharing punchlists with web designers. Still, the pleasure in offering a clear and agreeable site for grassroots organizers to enter and save data can be worth the effort. The University team introduced the portal to the pilot markets on a rolling basis, in order to assist them as needed. The portal has two main entry segments: the Market Profile and the data entry for each metric chosen. Once each market selected their metrics and the project team finished their individual Data Collection Protocols (DCP), those metrics data requirements were added to the site. In most cases, the markets entered data into their Market Profile immediately, but the actual data entry for each metric was done in fits and starts across the entire year, with some markets steadily entering data, others delaying doing so until the bulk of collection was done, and one or two falling behind with most of their data entry even as of this post.

In mid-summer, the University transferred the site to another server, which meant that a new link had to be used to find the portal. At least one market told us they missed that set of announcements when it happened and entered data in the old portal, which then had to be rekeyed.

Interestingly, the level and timing of data entry does not seem to directly correspond with their staffing levels. It may be linked more with their comfort with entry and with those that schedule regular office hours at the computer, or may also have more to do with how much they desire the data analysis for their own use. In any case, the markets are meeting with the project team in New Orleans in March 2016 and the challenges may become clearer when they have time to discuss it as a group. Hopefully, the team will have a range of solutions to these challenges by the end of the project.

In the meantime, here are the comments from the markets shared through the monthly feedback form managed by FMC and through some one-on-one calls I made in January to a few markets.

Comments collected from the markets about the iPads:

"I like the idea of iPads, however we had a few issues:

1. The free wireless at our market was spotty and did not get a good signal as the surveyor moved in his/her sector. Once they were able to connect with a visitor and agree to do the survey they did not want them to move to a location to get a good signal. Their time is valuable.
2. It takes a little while to pull up each category of produce on the iPad versus writing down the fruit or vegetable.

3. One one point early on the surveyor could not pull up the survey.
4. I am going to see if the surveyors can take the survey on paper next year and key the information in their down time. This will give them something to do while waiting.
5. Using iPads for the sales slips was a good idea but since our market only has one market manager. She doesn't have time to go to each vendor and wait for them to key in their information. She collects the sales slip when she collects payment."

"having the younger data collectors use the tablet was easy, as a matter of fact, when I was training them on it, they took over and figured it out on their own."

"When we opened the iPads the day before data collection #1 we got overwhelmed by the time it would take to program them. Plus, we initially worked with a survey team of 7 and only had 3 iPads, so we decided to go the old fashioned route and use paper since rather than an hour to set up an iPad, I just needed 5 minutes to copy the paper surveys. Of course, now I have to enter the results in the system one by one."

"I'm not tech savvy- I mean I still have a flip phone! If our Vista volunteer had been put in charge, she would have figured out right away."

"There is a 20 min lapse on each hour of surveys and adults do not like to be idle. Students have their friends at the market and enjoy their company in the down time. Students need community service hours and liked using the iPads for the data entry piece."

"The portal was slow and visitors did not want to wait long to provide data. They were more apt to give information when there was a paper form."

"Some volunteers were not comfortable using iPads because they were afraid they could damage the equipment."

Comments collected from the markets about the portal and data entry:

"The portal was kind of clunky to use (still is, honestly). Entering vendor data especially has been a challenge as I put everything into an excel spreadsheet, but then still had to enter each piece one data point at a time (and it wasn't always clear which part should be entered where). Then when I realized I was making mistakes there wasn't (until recently) a way to go back and edit."

"The portal was very user-friendly to understand how to use it."

"The visitor survey didn't flow on the portal well and the fields weren't lined up the same way as the paper survey-if you weren't careful, you might keep on entering and mis-key the entry."

"if you made a mistake, you had to email the team to delete it. No way to go back to previous screen or to review during entry..."

"The Fruit and Vegetable listing needs some work. Some items were missing (like zucchini) and it was hard to search through long lists every time. Additionally, there was a error with the letter code for each that made it impossible to use the same letter in two consecutive entries."

"The challenge remains finding time to enter the data or finding out how to get another person into the portal to enter the data."

"The portal was very slow."

"IF I had the time I would have done it a little at a time, but my schedule didn't allow for that."

"...how the data was saved was inconsistent between screens."

"After spending 2-3 (or more) hours putting data in, it got lost and I had to rekey it all in! Luckily, the students were available during the holiday break to rekey it all."

"Since the portal entry was cumbersome, I found it better to wait for at least a month's worth of data in order to figure out the portal all at once; also, once I got going, I found it easier and easier."

"It really hurt that the vendor sales data entry wasn't available 'til mid-summer; honestly, I felt like if there was no hurry to get that up, then there was no hurry on my end..."

"...liked the volunteer page but thought it could be set up better (i.e. for or individual arrivals and departures.)"

"...because the site and reviewing the data collected required me to make decisions while doing the entry, I couldn't assign anyone else to it."

"...feels like a lot to do when you are in the middle of it."

(as to why the manager did the entry and not a volunteer): "...there's a piece that I wanted to manage myself; if someone else did it all, I wouldn't like it..."

"I'm sorry, but I don't have a record of how long it took me to enter all of the data. But I'd say that over the course of the project I've spent about 4-5 hours re-entering data for one reason or another."

Comments collected from the markets about the University of Wisconsin's responsiveness throughout the portal/data entry process:

"Impressed by her (UW Grad student Lauren Suerth) timeliness in responding to emails"

"...great communication"

"They encouraged us to make suggestions; everyone is very supportive!"

And suggestions:

"Interviewing us after the first time we used the portal probably would have been helpful"

"Although I appreciate that the team has back up copies of our stuff, asking us to copy and send in all of the paper instruments-really necessary? I have to copy one page at a time (no feeder) it took a while!"

"It's great you can see the volunteer log entries and that would have been nice for the vendor sales slips too"

"I'd suggest that for long lists (like the fruits and vegetables list) that the system allow the field to autopopulate after entering in a letter or two. Seems like additional steps that could possibly be trimmed down."

"A way to see recent activity would be great."

What I like about what I share here from the feedback is that it shows a wide range of ideas and on the spot problem-solving. One thing that seems a little clearer to me now is the need for more descriptive self-tutorials, orientation and role plays at group meetings when the team is together. What is also important to note is that most of these markets have more than one portal they are responsible to enter data into and so their lessons and suggestions should be taken seriously to assist all of the designers of all of those sites before and those to come.

This level of detail definitely needs to be encouraged and saved during every portal development and then used for later iterations. In the meantime, there is no doubt this will inform the design of the emerging FMM portal at Farmers Market Coalition as well as continue to assist the research team in 2016's AFRI pilot and other market projects.

The last comment is reserved for Market Manager Michelle Dudley of Crossroads Farmers Market:

"...excited about year 2!"