



Evaluating the Social, Financial and Human Capital Impacts of Farmers Markets

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Introduction

From sea to shining sea, farmers markets are thriving in America. Insurgent Main Street programs are pitching tents in otherwise dormant retail parking lots. Small (and increasingly immigrant and younger) farmers are gaining a foothold in the economy as entrepreneurs. Meanwhile, children are for the first time learning about food. They learn, for instance, eggplants do not come from chickens. Often perceived as playgrounds for the price insensitive, are these ancient — yet recently reinvented — institutions accessible enough to be valued by wide segments of the shopping public? Are they the commercial domain of the hobbyist farmer or are they incubators for a new generation of agricultural pioneers? As a practitioner and a researcher, I contend that when professionally managed, farmers markets provide regions with affordable means to re-imagine community, stimulate commerce, and grow the next generation of good eaters. And yet, with so many food and community development options bubbling up to the surface, are these institutions ripe for investment? Why farmers markets over other models? Herein lies the need for measurement.

In 1995, I co-founded the nongovernmental organization *marketumbrella.org* together with chefs, farmers, urban growers, health advocates, and home consumers to reinvent the tradition of neighborhood public markets in New Orleans. Then, as now, I envision markets as fulcrums for social change. Our primary efforts were devoted to establishing a single farmers market in a neutral part of town: downtown New Orleans. This became known as the Crescent City Farmers Market. Today, it has grown to a thrice weekly, year-round market operating in three different neighborhoods serving 1.24 million annual shopper visits with a combined economic impact of \$9.88 million.¹

By the time Hurricane Katrina wrecked our region in 2005, *marketumbrella.org* had grown global. In 2007, we launched Transact, a research project led by senior fellow J. Robin Moon, M.PH.² She began to search for evidence of if and by how much farmers markets contribute to the social, financial and human capital impacts upon those who use or live near markets. Inspired by the Farmers Market Coalition's claim that "Farmers Markets are good

¹ The full "SEED Economic Impact Report for the Crescent City Farmers Market" (New Orleans, LA, 2010) can be downloaded online:

<http://www.crescentcityfarmersmarket.org/index.php?page=our-impact>.

² J. Robin Moon earned her Masters Degree from the Mailman School of Public Health at Columbia University in NYC. She is currently completing her Ph.D. at Harvard University.

for everyone,” we sought to test this premise. The Farmers Market Coalition is the national voice for farmers markets. But, is its claim true? Do farmers benefit? What about shoppers? Or the neighborhoods that host markets? Or as Moon carefully examined closely in Transact, is everyone present? Who is not at market? Why or why not?

Transact’s charge was to drill down and quantify impacts, even when it came to the fuzzy stuff. With support from the Ford Foundation, we matched public health discipline with community organizing know-how to design evaluation methods that tread lightly in these dynamic yet fragile public places. We named the project Transact for this reason: It is in the many and varied transactions at farmers markets where behavior is best observed. After all, unlike grocery stores, farmers market shoppers stand in many, many checkout lines (one at each individual vendor). These multiple checkout lines engineer many, different (and different types of) transactions. In this regard, farmers markets differ greatly from other retail venues. Our findings confirmed some conclusions we had reached informally through observation and triggered greater discipline when designing future investments and innovations. I will share these findings below.

Growing Market Share. In 1994, there were 1,755 farmers markets in the United States. By 2010, this number had increased by 250 percent to 6,132.³ This growth has swept up many in its path. Older farmers, once uncertain about the future of their farms, soon found new audiences for their traditional knowledge and old-fashioned agricultural practices. Their success has enticed younger family members back to the agricultural fold. Heirloom varieties of fruits and vegetables joined heritage breeds of animals in trading their “has been” status for that of “cool and hip” in a world otherwise fixated with all things new. For those who eat out will readily recognize this phenomenon: luscious descriptions of heirloom vegetables have added value to many a menu.

Similarly, forgotten neighborhoods and decaying Main Streets have found themselves uniquely positioned to host farmers markets. An abundance of under-utilized parking lots is ideally suited for hosting low-overhead markets. This results in *de facto* campaigns for re-branding areas as ripe for retail pioneers.

A testament to the creative leverage of farmers markets is the rise of farmers market incentive programs. In 1996 USDA’s Food and Nutrition Services eliminated direct marketing farmers from the Food Stamps business. It required states to transition to EBT (Electronic Benefit Transfer for SNAP, or the Supplemental Nutrition Assistance Program, as it is now called). This digital divide locked farmers markets out of the nation’s most important food security program. For nearly a decade, this single policy directive set most farmers markets in one particular trajectory: in search of consumers with cash.

By 2008, more and more markets were inventing new ways to accept SNAP via wireless swipe machines. Together with technology, markets launched new

³ United States Department of Agriculture, Agriculture Marketing Services, National Directory of Farmers Markets (Washington, DC, 2006)
<http://www.ams.usda.gov/AMSV1.0/ams.fetchTemplateData.do?template=TemplateS&navID=WholesaleandFarmersMarkets&leftNav=WholesaleandFarmersMarkets&page=WFMFarmersMarketGrowth&description=Farmers%20Market%20Growth&acct=frmdirmkt>

campaigns designed to reintroduce farmers to vulnerable consumers via incentive programs. This has yielded hefty increases in SNAP consumers' spending power (often doubling it). In 2010, three of the national leaders⁴ in the incentive field reported 2,700 farmers at 210 farmers markets in 23 states accepted SNAP and WIC (or Women, Infants and Children) benefits from 195,000 food assistance recipients.⁵

In reviewing this litany of progress in farmers markets over the past two decades, there is much to celebrate. Not only is a very old idea once again new but it is being reinvented continuously. Operating at the very place where public health, smart growth, creative economies, alternative agriculture, and environmental concerns all converge, markets exhibit more innovation than first meets the eyes. Unfortunately, farmers market organizers have made it all look too easy. Expectations grow higher and higher every time a farmers market is established. While market organizers have grown adept at jumping through hoops, running operations with minimal operating capital, triumphant innovation has largely left little room for discipline — with regards to management and especially measurement. While I would not welcome the kind of discipline that might squelch the combusive innovation, more discipline might encourage greater sustainability of actions.

What Does Success Look Like?

Farmers markets come in all shapes and sizes. The dazzling Dane County Farmers Market in Madison, Wisconsin wraps around the State Capitol building. It attracts 10,000 shoppers on a given Saturday. While size may matter, I have visited many successful small markets that count 250 shoppers a good day.

There are numerous reasons why one market may dwarf another: available farmers, the infrastructure of a neighborhood (to accommodate visitors and parking), hours of operation, perceptions of personal safety, and especially management capacity and intent. Success measures understandably reflect the agenda one brings to markets. Whereas economic development advocates may count dollars, public health professionals may look to pounds of produce sold. Needless to say, both are barking up the same tree — one in which bigger is better.

Instead, I argue for balance over the folly of scale. While small markets may always yearn to grow larger, it is important to remember that growth requires either capital investment or increased efficiencies (or both). Herein lie the challenges: Few resources exist for the types of capital investment that yields greater girth. Though brick and mortar infrastructure investments have followed success beneath tents and umbrellas, these dollars are difficult to come by. As to efficiency, remember farmers markets are by design inefficient. If you think about it, it is not particularly efficient for shoppers to traipse around from vendor to vendor in order to purchase their groceries. Far more efficient is the centralized cash till, as in grocery stores. However, this cuts to the core of what

⁴ The Fair Food Network, Roots of Change, and Wholesome Wave Foundation.

⁵ Interview with Michel Nischan, Chief Executive Officer, Wholesome Wave Foundation, February 3, 2011.

farmers markets offer to those who experience them: rich, multifaceted experiences.

Efficiency. Grocery stores may be more efficient than farmers markets. Dependent upon concentrated management and ownership structures, grocery chains are far better poised to move more people and profits through their doors. Yet, it is worth noting that most markets do not have doors. Operating in parking lots, temporarily closed streets and parks, farmers markets do not require the kind of front-end investment that stores require. This makes them an attractive strategy for cash-strapped communities. Sure, markets may only be open once weekly. By contrast, grocery stores trade on shopper convenience. As a result, most are open five if not seven days per week. However, during that one day of operation, farmers markets provide a community of farmers and emerging food businesses with an initial point of sale to a community of consumers. While it may be less efficient to assemble competing vendors in a single public space than for a grocery store to centralize the procurement and disbursement of food via a single checkout line, participants gain so much more through the inefficiencies of farmers markets. Not only are local farmers intentionally brought into the equation, earning retail dollars on their food but they learn shopper preferences as well. They bring these lessons back to the field. If efficiency in informing, enriching, and transforming farmers is the goal, then farmers markets may actually provide superior return on investment. Shoppers, too, learn: about the region's food system directly from the farmers who grow the food. Meanwhile, neighborhoods that host markets gain positive foot traffic as the good will spills out beyond the campus of the market.

Intent. More and more public health agencies are beginning to recognize that farmers markets serve food security goals. Indeed, Wholesome Wave has struck partnerships with health clinics to deliver Fruit and Veggie Rx. Doctors give patients suffering from chronic diseases (e.g., obesity and diabetes) prescriptions to purchase fruits and vegetables from nearby farmers markets. This kind of programmatic reach for farmers markets puts pressure upon their already overstretched management capacity. Partnerships between markets and robust institutions like a hospital are akin to tug boats mooring next to ocean liners. They test each organization's core missions, communication skills, and expectations.

From an economic standpoint, why would farmers at a market endorse its leaders to enter into partnership with a hospital? If farmers are interested in customers, are obese and infirmed shoppers their best bet? Not only do these vulnerable shoppers enter into the market spending vouchers (rather than simply cash), as newcomers they may also require explanations: How the market works, how to pay, and from where the products come. Also of concern, how will these new shoppers feel upon arriving at market? Will they be intimidated and how much energy must a market devote to overcoming these barriers? In other words, these sound like shoppers with labor-intensive demands.

Similarly, food security advocates may view farmers markets as inefficient to meet their goals. Open during select hours, markets are less convenient than a

food bank. Moreover, the sale of produce (even that which is subsidized) takes more time and energy than simply handing it out in a food line. Again, this is where efficiency and intent often clash. Just as grocery stores may facilitate more efficient commerce than markets, food banks may be more efficient delivery mechanisms for the needy. However, efficiency often requires important sacrifices: most notably the human touch, or dignity. After all, the Soviet breadlines may have efficiently doled out bread to citizens during times of need; however, they also reinforced the power dynamics of obedient citizens passively relying upon the generosity of the caretaker state. While I would not accuse food banks of necessarily harboring the same sort of paternalism, the model does efficiently manage emergency foods for the food insecure tidily and away from the purview of the rest of us. This comes at some costs.

By contrast, it is the intent of farmers markets to bring everything into the town square — even if I am speaking only of the figurative town square of temporary, weekly farmers markets that mushroom up in city centers. Farmers who quietly till their fields in hidden rural corners of a county are brought into the mainstream. So are their concerns, challenges, and successes. After all, at farmers markets they are the ones making profits. At grocery stores, there is no guarantee that local farmers products will be on offer (or that it is even profitable for that arrangement to be engineered). Similarly, when SNAP consumers or vulnerable seniors spend their benefit dollars in the farmers market, their dignity is reinforced. They too deserve the multifaceted experience of selecting which products to purchase from which farmers. They join the civic experience and the joy of a community reclaiming some control over the local food distribution system out in the open.

Recognizing that I may sound like a partisan for farmers markets, I am one. Few other community investments offer similar returns on investment that so effortlessly converge social, human, and commercial concerns. While I would not wish to overstate the effortless manner in which markets stumble through this work, they do manage to straddle the often competing silos (of, say, public health and economic development) far better than other players with whom I work. Markets manage to do this precisely because their intent instructs them to do so. As stated earlier, many markets suffer from a weak institutional footing. For instance, many lack published mission statements. However, these weaknesses should be understood as indicators of capacity rather than intent. Through our Transact research we have begun to sketch out a typology of markets, it seems that all share a similar DNA — one that embraces a proclivity to convene disparate interests in a public manner.⁶

A triple bottom line. If success equals balance, then how does one measure balance? I can easily recognize when a market is out of balance. A market that

⁶ When markets set up Marketshare accounts at <http://marketumbrella.org>, they are invited to input information into a MarketProfile. This enables markets to print out a MarketPortrait. This report sheds light upon a market's capacities and intent. Though still in its infancy, our research identifies types of markets. Each exhibits different types of behavior determined by how they manage people, place, products, and procedures. The more we begin to better understand market structure and intent, the easier it is to forecast outcomes.

enjoys brisk sales but otherwise facilitates few friendships among participants is “all business.” Similarly, a market that orchestrates an intricate array of programming intended to feed vulnerable families runs the risk of throwing itself out of balance. It must be careful not to inadvertently undermine the commercial sales of its farmers (who are present to earn money). How might this be? A farmer may grow irritable if his/her regular shoppers have to fight through the myriad of school groups in order to purchase products. And what about a market’s neighbors? It may confidently increase its girth without checking in with neighbors. This may cause it to become increasingly unpopular with its host neighborhood. It is important for a market to consider the physical infrastructure of the neighborhood in which it resides. As a temporary activity (e.g., on Saturday mornings), it may need to negotiate expectations with adjacent businesses (over parking, for instance) and residents. If the market only speaks with its supporters, then it runs the risk of arming its detractors.

In order to address these measures of balance, markets and their investors must a) identify areas of impact, b) measure these impacts, and c) communicate what these might mean to communities directly or indirectly affected.

While I can imagine a great many number of impacts that I have observed in markets around the world, let us begin with the Farmers Market Coalition’s triple bottom line: “Farmers markets are good for farmers, consumers, and communities.” Farmers gain financial capital through direct, retail sales. Consumers gain human capital through the purchase of fresh, healthy and local foods. Communities gain public spaces in which to grow civic engagement. If this is what farmers markets claim to do and to do well, how is one to measure?

A Study in Transactions

Market practitioners may themselves recognize that many benefits occur naturally as by-products of farmers markets. However, in order to quantify how farmers markets are good for everyone, we must first draw evidence. Additionally, such findings could contribute to market management decisions. What if we were able to pinpoint the strategic pressure points to better maximize human, social and economic benefits?

In 2007, marketumbrella.org assembled the Transact research team to develop the measurement instruments to test the following hypothesis:

Appropriately managed and resourced, public markets build social cohesion as they improve local food security, public health, and the economic well-being of farmers and communities as a whole.

During the first year, Transact studied five markets in the New Orleans area, interviewing 191 shoppers, 61 vendors, and 375 residents during 12 visits. Meanwhile in Santarém, Brazil, a port city with a population of about a million, served as the setting for 15 trips to three markets yielding interviews with 231 shoppers, 205 vendors, and 400 residents. Transact was continued in 2008, 2009 and 2010 with additional studies in Los Angeles, CA, Seattle, WA and again in New Orleans with research that has yielded a trio of measurement tools: SEED (Sticky Economy Evaluation Device to measure financial capital), NEED

(Neighborhood Exchange Evaluation Device to measure social capital), and FEED (Food Environment Evaluation Device to measure human capital).⁷

Transact tests the following assumptions:

- That markets build social, human and financial capital.
- That social capital improves community health.
- That community health in turn builds human and financial health in a positively reinforcing spiral.

These assumptions led us to the assertion that, properly managed, farmers markets are effective local tools for increasing financial, human, and social capital.



The case for social capital. A growing body of research demonstrates that social determinants are significant factors in public and private health. In the United States, for example, infectious diseases are no longer the most important public health threats. Instead, chronic diseases caused by genetic predisposition and/or lifestyle choices are the nation's leading killers. Thus, tobacco is the nation's single leading cause of death, accounting for 400,000 deaths per year.⁸ While individuals clearly have a role in lifestyle choices, there is growing evidence that structural economic and social forces are also at work.⁹

Farmers markets can play an obvious role in addressing the nutritional determinants of health by presenting an enticing array of healthy food choices. I will discuss this later with regards to human capital impacts. Meanwhile, it is important to note that they also build social capital, with trust as its proxy.

Social scientists identify two types of community cohesion-building activities: those that “bond” homogeneous community members and those that “bridge” diverse members of a community. For example, transactions among the buyers and sellers at a predominantly Vietnamese market build “bonding” cohesion. However, farmers markets that are effective at increasing positive interactions between diverse members of a community (rural farmers and urban consumers; rich and poor; black and white, etc.) are said to build “bridging” cohesion. They help to bring together groups that otherwise would have little reason or opportunity to interact.

Sociologist Robert Putnam describes the types of associations that build community: formal associations, like Kiwanis Clubs, churches, and softball

⁷ Each Transact site was selected because it represents communities experiencing rapid social change and/or trauma. In the Greater New Orleans region, Hurricanes Katrina and Rita inflicted considerable trauma upon its populations. In Santarém, Brazil, deforestation is forcing small farmers into the cities. In Los Angeles, neighborhoods reflect the rapid influx of new immigrants. In Seattle, WA, the local food movement is in a rapid ascent, thus applying pressure to farming communities to meet demand and to neighborhoods to host an increasing number of farmers markets.

⁸ Michael J. Thun, MD, MS; Louis F. Apicella, MSPH; S. Jane Henley, MSPH, “Smoking vs Other Risk Factors as the Cause of Smoking-Attributable Deaths,” *Journal of the American Medical Association*, <http://jama.ama-assn.org/content/284/6/706.short>

⁹ R. Wilkinson & M. Marmot (ed), *Social Determinants of Health: The Solid Facts*, World Health Organization, 1998.

leagues; and informal associations, such as friends, family, and even the familiar faces one sees repeatedly at the farmers market. Both, Putnam argues, bind people to the places they live.¹⁰

The literature describes a variety of characteristics of social capital, including social participation, sense of belonging, information equity, friendship diversity, family cohesion, and a sense of trust (intergenerational, interracial, urban-rural, etc.).

In reviewing the instruments available to measure social capital, we found none particularly relevant to our intended research: i.e., none that were market-specific, provided a numeric rating of social cohesion (or trust), and were relevant to recently destabilized or transitional communities. For example, a World Bank survey asks, “Generally speaking, would you say that most people can be trusted, or that you can’t be too careful in your dealings with other people?” By comparison, the Transact survey asks (of New Orleans market participants), “On a scale of one to five, with five being the most, how connected to your community did you feel before/after Hurricane Katrina? How much did this market affect that?”

Drawing from our blended experiences in public health and community organizing, our team developed a methodology to measure social capital: NEED (Neighborhood Exchange Evaluation Device). By the time we deployed NEED in the summer of 2008 in Los Angeles, we had begun to tweak and streamline the methodology. In L.A., we collected data over a period of 21 market days at eight different farmers markets. The research included 1,687 interviews of shoppers, residents and vendors, and 222 market observations of shoppers and vendors.

The NEED methodology includes:

- Observing selected shoppers to tabulate the quantity of transactions, both economic and social.
- Directly surveying shoppers and vendors.
- Tabulating the quantity and length of shopper-vendor interactions.
- Door-to-door interviews of neighbors surrounding each market.
- Gathering demographic information at each market every hour and comparing overall numbers to U.S. Census Bureau information.

In examining L.A. neighborhoods with high-percentages of low-income, ethnic or minority residents, we also selected markets that serve more stable, white and middle class consumers.¹¹ The results confirm that Los Angeles farmers markets are helping to create a sense of community and counter big city anonymity in the neighborhoods they serve. Among shoppers surveyed:

- 75% came to market to do more than shop.
- 55% felt the market increased their connection to the community.
- 99% believed the market improves the health of the community.
- 53% believed the market improves perceptions of the neighborhood.

¹⁰ Putnam, Robert *Bowling Alone: The Collapse and Revival of American Community*, (New York, NY: Simon & Schuster, 2001).

¹¹ Los Angeles markets include the Sustainable Economic Enterprises of Los Angeles’ Hollywood, Lemon Grove, Central Avenue, Watts, Echo Park, Leimert Park, and Atwater Village Farmers Market, and the Kaiser-Permanente Woodland Hills Farmers Market.

Reasons shoppers came to the market other than to shop include, not surprisingly, “to eat,” “the market atmosphere,” convenience, the desire to support local growers, the appeal of low-cost organic produce, and as a social place to meet and be with others. Shoppers made comments such as:

- “I wouldn’t come to the area without it.”
- “I feel more comfortable, less intimidated at the market.”
- “I see people I didn’t know existed.”
- “The market helps to reduce gang activity.”
- “My blood pressure went from 220 to 140!”

The majority of market neighbors were also favorable in their assessment of the market’s impact on their community. Neighbors believed their markets:

- Brought access to low-cost fresh fruits and vegetables.
- Brought more people (traffic) to the community.
- Brought and connected different people.
- Supported local produce and farmers.

Vendors, too, reported favorably on the market’s management and 72% said they feel a strong sense of community when they come to the markets. Other comments included appreciation for the things they learn at these markets, including “other languages,” “nutritional information,” “how to grow certain foods,” “better marketing skills,” and “how to be more community oriented.”

Whereas the NEED methodology is still being field-tested, early indications are that the combination of intercept surveys, shopper observations (which includes the tabulation of customer interactions and lengths of stay at market), and comparative demographics (of vendors, shoppers, and neighborhoods) together begin to capture if and by how much markets facilitate social trust and between whom. In particular, the demographic data helps markets to identify with whom are relationships are being forged: across and/or between the divisions of race, class, geography and age.

The case for financial capital. Whereas NEED is scheduled to come online by early 2012 as a social capital measurement tool available for deployment via the marketumbrella.org website, SEED (which stands for the Sticky Economy Evaluation Device) is already live and in use.



sticky economy evaluation device
measuring the financial impact of a public market

Although the Transact model calls for balance between different capital impacts, I certainly feel comfortable arguing that core activities must always remain commercial in nature. Without them, there is no market. No one should expect farmers to trundle their ways into town, take risks by holding onto their products for retail sales, and then sacrifice all of their commercial interests for a variety of social or public health outcomes. It is enough that they make the trip to market, conform to the rules and expectations of the market, and allow themselves to be leveraged for a variety of aims. As such, I recommend markets to remain abreast of how they serve vendors’ financial interests.

It is a relatively straight forward proposition to tabulate the economic impact of grocery stores. There are a number of vantage points from which observers

may draw conclusions about formal economic activities: gross receipts, sales tax revenue, and job creation, to name but a few. Farmers markets are different creatures altogether. Assemblies of independent businesses, each vendor tabulates his/her own receipts and may not be required to share financial information with market managers.

In US farmers markets, one type of vendor rent structure prevails. It charges a flat fee to vendors; however, those who impose a fee based upon a percentage of sales operate in a privileged position: earning far more in fees for the market.¹²

For argument's sake, I will focus my energies here with the most common: the flat fee vendor structure. It assumes that the market management possesses the least amount of knowledge about how its farmers are doing. While I highly recommend informal techniques to "eyeball" individual vendor success, like counting empty strawberry flats and multiplying their number by the price sold, more complete measures are necessary.

No one likes to share private financial details. This is especially true of farmers. In general, they share a cultural predisposition to play down good fortune when they find it. If examining farmers' personal financials is out, then what about sales tax records? Might they provide some insight? As luck would have it, in most states, even the ones that collect sales taxes on food, farmers are exempt from collecting sales taxes when they market their products directly to consumers. This leaves customer intercept surveys as the most solid indicator of gross receipts.

In years past, I have asked vendors for financials. I have not found the accuracy in their numbers to be entirely convincing. Indeed, markets that collect a percentage of vendors' gross receipts for rent also describe how unreliable are their numbers. Whether this is due to obfuscation or low levels of financial literacy is unclear. It may be due to both.

Working with students and faculty at both the A.B Freeman School of Business at Tulane University and the College of Business at Loyola University, our organization began to experiment with a set of customer intercept surveys to determine the economic impact of our Crescent City Farmers Market.

We were not alone. Even today, scanning the USDA reports, in addition to ones compiled by state associations and individual markets, I continue to stumble upon numerous studies. A popular measurement tool in common usage is something known as Rapid Market Assessment (or RMA). Designed by Oregon State University's thoughtful duo Garry Stephenson¹³ and Larry Lev, RMA instructs markets to erect sheets of paper on A-frames advertising specific questions. Everyone is invited to place their answers to questions in the form of dot-shaped and color-coordinated stickers in particular areas of each sheet. At the end of the market, the dots are tabulated. Findings are shared with the market community. In farmers market circles, RMA is often known as "dot surveys" as much of the method involves this dot business.

¹² The USDA National Farmers Market Manager Survey 2006 reports that 76.4 % of farmers markets charge a flat fee to vendors, 26.4% impose a membership fee, 13% percentage of sales, and 12% through other means (figure 41, page 54).

¹³ Highly recommended is Garry Stephenson's book *Farmers' Markets: Success, Failure, and Management Ecology* (Cambria Press: Amherst, NY, 2008).

What I like about RMA is that it is a visual, fun and imaginative tool. Market organizers describe how they enjoy the evaluative process. The questions posed are good ones: Income levels of shoppers, dollars spent in the market, dollars spent near the market, and frequency of visits, to name but a few. In fact, they closely reflect questions posed with SEED. What I do not like about RMA is this: From a practical standpoint, A-frames and sheets of paper are easily blown down in windy market conditions. Findings are tabulated and stored manually (thus asking a great deal of work from organizers). Methodologically, the public manner in which respondents are asked to place their dots on the sheets leaves the findings susceptible to prestige bias. Here is what I mean by this: If one answer to a question is visibly more popular than another (as evidenced by a plethora of dots in that answer category), then the respondent is put in the awkward position of either publicly bucking the trend or going with the herd in how s/he responds. For measuring the “mood of the day,” RMA may be useful. For measuring defensible financials, I would like to turn attention to SEED.

Our original intent was to design a simple, methodologically-sound customer intercept survey that would allow a market to track findings by storing studies on its digital account over the years. SEED does just that. The methodology uses customer-intercept surveys, head-count tabulation and the Bureau of Economic Analysis’ RIMS II economic multiplier to determine a farmers market’s annual economic impact upon its region.

SEED is free and available online at <http://marketumbrella.org>. Each market organization sets up an account, inputs information about the organization and its markets (if it operates more than one) in a Market Profile. SEED instructs users to print out the study forms, how to tabulate shopper attendance, and how to assemble a study team. On a selected Market day, the study team tabulates shoppers in attendance¹⁴ and conducts intercept surveys of shoppers (with answers marked on study sheets downloaded and printed from the SEED site and then entered into the market organization’s account). Once all data is inputted, the user presses the button to publish a study.

This is how SEED works: The tool adds the economic benefit of the market for its vendors to the economic benefit for nearby businesses. It takes this number (annual gross receipts of the market plus annual gross receipts of purchases made by market shoppers at the market’s retail neighbors) and multiplies it by the Regional Input-Output Modeling System II multiplier (or RIMS II multiplier). This multiplier is calculated by the Bureau of Economic Analysis (BEA) of the US Department of Commerce. It captures the impact of an initial round of spending plus successive rounds of re-spending of the initial dollars

¹⁴ Methods for tabulating customer head counts should conform to the scale and location of each market. If the location is too large or chaotic in nature to count every shopper entering the market, alternatives exist. Tabulation teams may enter the market on an hourly basis, count shoppers, and multiply times three (to determine hourly attendance). Each hour is tracked, tabulated into a market total. The multiplier of three is based upon the industry norm of market visitors spending 20 minutes during each stay. The Transact research team found this to be the average. If there is reason to suggest that this number differs greatly in individual markets, I recommend shadowing shoppers to determine a market-specific average.

within the region. The greater the interaction each dollar has with the local economy, the larger the impact (and the stickier the economy).

Shoppers are asked the following questions:

- How often do you visit the market?
- Is the market your primary reason for visiting this neighborhood today?
- How much money do you estimate you spent today at the market?
- Do you have plans to spend money elsewhere in the area?
- Please estimate how much you have spent or plan on spending today at other businesses?
- What is your zip code?
- What is your gender?

A SEED Economic Impact Report provides a market with a wide range of economic findings that are useful for internal customers, external customers, and for internal analysis. For external customers — be they public officials or philanthropic investors — the following reports are useful:

- Projected gross receipts within the farmers markets.
- Projected gross receipts at neighboring retailers.
- Projected sales tax revenue (city and state) from sales at neighboring businesses.
- The percentage of shoppers who affirm that the market is the primary reason why they traveled to the neighborhood.
- Sales per square foot.
- The average sales per shopper.
- Estimated annual shopper attendance.
- Average number of vendors.

Internal customers (e.g., market vendors and neighboring businesses) may find the following results useful in their business planning:

- The top zip codes from where the market draws its shoppers. It is always helpful to know who your shoppers are and from where your shoppers have traveled.
- The frequency of market visitors — data that can help vendors determine how many of their shoppers are aware of product changes from week to week.
- The dollars spent at neighboring businesses — data that may inform businesses (especially ones who question the value the market's presence) may begin to ask whether they are capturing their share of overflow dollars.

The net result is that SEED reports the financial value of the market upon its vendors, neighboring businesses, and local tax revenue.¹⁵ The Crescent City Farmers Market report is published and available online as a PDF.¹⁶

The case for human capital. By the time First Lady Michelle Obama had the South Lawn of the White House tilled for the new vegetable garden in 2009,¹⁷ nearly all of the action in farmers market world had migrated to the issue of

¹⁵ The tax revenue figure is tabulated and published but not included in the combined economic impact figure.

¹⁶ <http://www.crescentcityfarmersmarket.org/index.php?page=our-impact>

¹⁷ <http://www.nytimes.com/2009/03/20/dining/20garden.html>

human capital, most notably food and nutrition. I do not mean to suggest that farmers market organizers were joining the swelling ranks of the food security revolution with calls for irrigating “food deserts,” school lunch reform, and the like. On the contrary, farmers market organizers have and continue to reside on the vanguard of such change by actually doing it week in, week out.

With the public health fields gaining more and more traction with calls for taking more seriously the growing global epidemic of childhood obesity, every



product, project and enterprise began to be identified as instruments either for or against healthy food access. Still soaking in the afterglow of the recent law suits and marketing campaigns against tobacco, public health leaders sought out strategic allies. Much of this heavily-funded work is still being formed so it is still too early to predict just how far and which direction it might go. Nevertheless, farmers markets are often among its more visible examples of what is right in our world:

public, non-threatening places for families to purchase fresh, healthy, local fruits and vegetables.

How farmers markets engage in partnerships with these large institutions – be it the Center for Disease Control, Robert Wood Johnson Foundation, for starters – remains an open question. As I mentioned earlier, it is akin to tugboats mooring up next to ocean liners. Expectations are difficult to manage. Nevertheless, farmers markets are useful allies in this crusade to make it easier for families to eat healthily. Yet, how useful? Should farmers markets spring up in every neighborhood of every city on every day? I would certainly like for this to occur; however, such a transformation is likely to take longer than what decision-makers feel they can afford. With rising expectations, everyone wants everything to happen now! Or, so it seems.

Though absurd, this impatience is pitting worthwhile strategies against other worthwhile strategies. For instance, consider investments in another area in which I am also passionate: community gardens. They appear to be easy, charming, and attractive strategies for households to grow their own food. And yet, for each garden, it takes countless resources to establish and maintain the enterprise. When investments are made with high expectations combined with low levels of knowledge of the work itself, investors become frustrated. They quickly drop that which they perceived to be the “low hanging fruit” in exchange for more conventional strategies.

Recognizing that I am going to great lengths to illustrate investment strategies in the alternative food systems movement, this point directly relates to human capital and its measurement. Community development and public health investors are presented with a choice of options. How should they proceed? If investments in alternatives, like farmers markets and community gardens, are not the quick and easy as they appear from outset, then will these investors dump them in exchange for more conventional approaches? Certainly the pace at which the fresh food financing initiative has gained currency is indicative of how much

more comfortable decision-makers are with grocery stores.¹⁸ After all, they presumably understand them. While I acknowledge that both markets and stores are useful, outcomes differ. As a result so should measurement.

How are farmers markets impacting an individual consumer's health or well being? Or in other words, their human capital? Are they getting fatter or thinner? This is where the rigid discipline of science really keeps us honest. Common sense tells me that farmers market shoppers are likely to eat more healthy foods than those who are not. Yet, the market shopper may return home after each market visit with arms filled with fresh mustard greens, only to deliver them to a neighbor. Truthfully, it is difficult to determine what market shoppers do with their purchases. Beyond eating the food, are consumers improving their health? Are they improving their body mass index? Are they consuming fresh leafy greens and then huge portions of fried, fatty foods?

I am not about to place scales in the market with the expectation that shoppers will weigh themselves in public. Nor am I going to follow them home to weight them in private. Now, there are options for venturing into this level of intimate and scientific measurement. The Wholesome Wave Foundation's Fruit and Veggie Rx is one. Health clinics prescribe servings of leafy greens for purchase (by way of a voucher) at farmers markets. This makes sense. Doctors maintain a doctor-patient relationship. In this instance, the doctor may be required to weigh the patient. However, even then, it is tricky to draw a direct causal relationship between the market and weight loss. Lines of correlation may be easily drawn, but correlation does not make the strong case for which the scientific community is looking.

This leaves us with fewer options. If it is difficult and expensive to conduct scientific studies to determine whether farmers markets improve people's individual health, then why not study that which markets certainly do? If these questions can be answered in the market via quick and informal customer intercept surveys, all the better. What is it that markets do well? They appear to alter an individual's food environment by increasing his/her food knowledge.

As a practitioner, I know this to be the case time and time again. School groups march single file into the market with eyes peeled to the array of colors on display. Afterwards, children leave the market possessing new knowledge of how, for instance, carrots grow under ground. Or, as we have noted in New Orleans, shoppers are for the very first time confronted with an extremely fragile product: live soft shell crabs. Are they sleeping? Are they still alive? Yes, they are moving, albeit slowly. This is the very first time shoppers observe soft shell crabs (without the fried batter, as they have come to recognize in restaurants). Conversations with seafood retailers have informed me that market shoppers confidently march into their seafood stores in search of live soft shell crabs (like the ones they have purchased in the farmers market). With new knowledge accrued, market shoppers become assertive consumers: demanding more from other food sources. Some even become avid gardeners, thus taking even more control of their food into their own hands.

¹⁸ Spearheaded by Philadelphia-based Food Trust, this method for public financing of grocery stores, especially in designated food desert neighborhoods, has earned itself considerable attention from policymakers.

As a result, farmers markets play a role, maybe even a unique role, in altering an individual's food environment. As author Gary Nabhan describes in his book *Coming Home to Eat*, most consumers' relationship to food is akin to a child who presses the buttons on a vending machine: It is as if food falls from the sky (with no relationship to who grew or made it, how it got here, at what costs, etc.). Also lost in this figurative vending machine is an appreciation for taste, the subtleties of the seasons, of different varieties, and as wine enthusiasts often indulge: the *terroir* or unique taste of the land in which food grows).

Yes, this sounds a bit esoteric. How might an appreciation for the *terroir* of apples, for instance, improve one's human capital, or human health? Maybe this issue gets to the nub of which important attributes or impacts markets should be measuring if they are to contribute to public health thinking in any meaningful way. One public health school of thought calls for an endless parade of sticks: Ban soft drinks in schools, tax cigarettes, etc. Another looks to carrots: Incentivize healthy food choices in order to create a love for food.

Here is where farmers markets come in. If they grow the next generation of good eaters whose palates can discern the difference between a Roma and a beefsteak tomato, then these children stand the chance of selecting healthy foods because they like them. As a parent, I have witnessed this occurrence first hand. Moreover, I know that my daughter is not the only one on planet earth to request fresh strawberries soaked in balsamic vinegar. Tastes are learned through purposeful introductions and experimentation. This is what markets do well!

So, how do you measure this learning process? Field-tested in New Orleans at the Crescent City Farmers Market on July 13, 15 and 17, 2010, the Transact team interviewed 320 adult and 69 children shoppers. Its findings helped to forge FEED (Food Environment Evaluation Device).

Through customer intercept surveys, these are some of the questions adults are asked:

- How long have you been shopping at farmers markets?
- How frequently do you shop?
- Have you been introduced to new foods at the market (if so, which ones)?
- Has shopping at the market impacted your shopping behavior elsewhere?
- Did you have any conversations at market about food (if so, what kinds)?
- Do you believe the market has had an effect on your health (if so, how)?

Children are asked a series of questions (with the approval of parents):

- Have you seen a farmer or a fisher at this market today?
- Do you help in the kitchen (if yes, what do you do)?
- Where does food come from?

Among the findings, there are several worth noting:

- 74% of adults were introduced to new foods at the market. This conforms with what I can recount thousands of times over in conversations during fifteen-years of study and practice in markets. Farmers markets improve consumers' food knowledge.

- 31% of adults described how they eat more seasonally since shopping at the market. In responding to another question, 34% of adults described how they shop less often at grocery stores since becoming farmers market shoppers. These responses seem to suggest that the market triggers behavioral change in

consumers. Our hypothesis is that market shoppers evolve. Over time, they grow more confident in their food choices; ask more questions from other shoppers, chefs, and farmers; and begin to reorient their consumption habits around the seasonality of local foods.

During future field-tests, we will delve into this issue further. Do they garden more over time? Grow more vegetables and herbs? Raise chickens? Moreover, does this proclivity to shop less at other stores also indicate that as consumers they become more selective about which products they purchase where. For instance, grocery stores may begin to serve their needs in new ways: as venues for purchasing staples, like toilet paper and salt. If so, farmers markets may not be laying the ground work for a new kind of consumerism so much as for a new kind of citizenry. They may be less inclined to shop, especially at places that do not offer authentic experiences, transparencies of practice, or the transfers of knowledge.

- 84% of adults believe that shopping at the market positively impacts their health. The perception, at least, is strong.

Among children, findings also seem to indicate that markets help them navigate the myriad of food choices that confront young people:

- 46% of children understood that the vendors are themselves farmers and/or fishers. This also means that roughly half did not make this connection. Is this due to the age of respondents? Are these concepts that are not fully comprehended until one reaches a certain age? Or, could the market do a better job with signage directed towards children? This will also be further explored.

- 77% of children actively engage with food at home. They help to cook in the kitchen, compost, turn the salad spinner, etc. Food preparation is known to be an effective activity for food education.

- 78% of children connected food to “its biological source.” This means that when asked where food came from, they were able to connect it to the land, water, farms, etc.

During the summer of 2011, the Transact team will resume the field-test for FEED. Health studies that intrude into an individual consumer’s personal dietary behavior may come to fruition and support the argument that farmers markets contribute to an individual’s physical health through improved healthy food access. As a market practitioner, I have difficulty imagining a method that does not break the social trust between consumer and market. Please remember, farmers markets are places that ask little commitment from consumers. This is one of their great strengths. Compare markets to Community Supported Agriculture (CSA). Consumers contribute a season’s harvest with front end investment. All that farmers markets ask of their shoppers is to show up, not be disruptive, go home and cook, and return the following market day. The loose ties of farmers markets enables them to be far more open and accessible than does a CSA or consumer cooperative. Again, think of it as a vehicle for the advance troops in this food revolution.

Back to science: Even if extensive BMI studies were to be conducted, I contend that it is still highly valuable to evaluate how and where do farmers markets increase a consumer’s food knowledge — knowledge that results in improved BMI, and so forth.

In Conclusion

Farmers markets have existed for thousands of years as practical, public venues for commerce. As public venues — be they organized intentionally or not — markets deliver attributes far wider than simply the commercial. As SEED, NEED, and FEED are meant to capture, a triple bottom line of benefits is imbedded in the very structure of farmers markets. Some produce greater commercial benefits, whereas others may do more for social cohesion and learning.

As a result, future investment decisions should consider blending these disparate interests into what amounts to a social contract between all parties: consumers, farmers, neighbors, and more. What is meant by more? I argue that the triple bottom line is just the beginning. Many other interests should be logged, measured and brought into the evaluation process as well.

For instance, do farmers markets contribute to the natural capital of a region? Tabulating food miles together with acreage devoted to sustainable land and water management practices may provide insight into how farmers markets contribute to the ecology of a region.

What about intellectual capital? The transfer of knowledge between farmer and chef alone could keep a research team busy for years to come. As to spiritual capital, there is something magical that occurs beneath the tents that house charismatic farmers and fishers. I know the conversations so well that I can all but recite them: The formerly invisible farmers recount their week of planting, harvesting, and sorting crops to audiences of alienated office workers whose lives seem to center around filling out telephone logs, responding to emails, and a vast array of seemingly endless tasks. By contrast, the purposefulness of tilling the land, then selling the fruits of labor to families who in turn grow up before their very eyes sure seems to answer some spiritual questions about place, people, and purpose in life.

If the farmers market field was mature, I would have an extensive roster of measurement tools to share with you. It is not mature. Rather, an unexpected and unorganized generation of actors in civil society are taking social entrepreneurial risks to reinvent the ancient mechanism of farmers markets as agents of social change in communities half-starved for products, people and place. The food revolution has only just begin. I am hopefully that measurement will follow shortly.

About Richard McCarthy

Richard McCarthy embodies the phrase, “think globally; act locally.” After growing up in New Orleans and earning his master’s degree at the London School of Economics, he co-founded the Crescent City Farmers Market in 1995. As executive director, he led the organization to grow from a weekly farmers market into marketumbrella.org, an internationally recognized mentor for markets, community-building and sustainable economic development with an annual operating budget of \$750K and a staff of seven.

In its 16th year, the Crescent City Farmers Market has a \$9.88 million economic impact on the city and the region. By learning, sharing and growing, the larger marketumbrella.org cultivates the field of public markets for the public good. Richard, who is half-English and a fellow of the British American Project, carries his visionary social-entrepreneurial approach from New

Orleans to the world. In 2002, he led a New Orleans delegation to the United Nations' World Summit on Sustainable Development in South Africa, as well as to the preparatory meetings in Indonesia. He continues to travel frequently, giving communities everywhere the tools to manage their own lives and livelihoods.

He was the founding president of the Farmers Market Coalition (2005-2007). He served on the Project for Public Spaces' public markets initiative (2002-2006). It resulted in \$2 million in new grant money for public markets. Currently, Richard serves on the board of the New Orleans Food Policy Advisory Committee, the community advisory board of public radio station WWNO — 89.9 FM, and the community advisory board of the Edible Schoolyard New Orleans. It is the first Alice Waters project outside Berkeley to encourage sustainable gardening and cooking among public school students. He was named a Public Health Champion in 2004 by the Tulane University School of Public Health.

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