



Exploring Regional Produce Procurement in Detroit Public Schools



AMY ROSENTHAL, SCHOOL FOOD FOCUS

JOANNE BERKENKAMP, TOMORROW'S TABLE



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School Food FOCUS and Public Health Solutions

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Note: To maintain confidentiality, the real names of DPS suppliers are not used in this report. Italicized company names are aliases.



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Executive Summary

In September 2013, School Food FOCUS (FOCUS) partnered with the USDA Agricultural Marketing Service on a cooperative agreement to enhance the regional produce procurement capacity of Detroit Public Schools (DPS). The goals of the project were to create benefits to producers through new market opportunities and to schoolchildren through increased access to healthy fresh foods.

To achieve these goals, FOCUS was charged with both researching current DPS channels for regional produce and identifying ways to enhance the district's capacity to procure fruits and vegetables regionally. FOCUS worked closely with DPS as well as Detroit Eastern Market (DEM) and DPS produce suppliers during 2014. DPS, FOCUS, and DEM decided to target winter squash for increased regional procurement in fall of 2014. FOCUS also researched and documented a supply chain bringing Michigan-grown blueberries into DPS as an example of a mutually beneficial farmer-district relationship.

DPS currently spends 10 percent of its produce dollars on products grown in Michigan. This is well above the 2 percent average across the districts in the Upper Midwest for which FOCUS collects data on regional spending and evidence of the district's commitment to sourcing locally. As with these other large districts in the region, the current context of the food system can make it challenging for DPS to access regional products in an efficient way.¹ DPS relies on a broadline distributor which sources products from a range of manufacturers, processors, and other distributors. Given the multiple businesses through which

foods change hands, Michigan farmers are often unaware when their product is sold into DPS, and DPS itself has limited knowledge about the geographic origins of the produce. Lack of knowledge about produce origins, either retroactively or in advance of purchase, makes it difficult for the district to track and prioritize purchasing regionally. Other issues found to hamper regional procurement capacity include logistical complexities, produce availability, and institutional barriers to change within supply chain firms.

Addressing these potential constraints requires commitment by the district, its partners, and its suppliers. Moving to new practices that may involve more work without an obvious payoff can be a hard sell for businesses or school districts for whom the bottom line is always a consideration. Where DPS has seen success, it is a direct result of its commitment to regional purchasing and other salient factors: selecting the right products, finding alignment between supply chain partners, and clear communication and a collaborative approach among those involved.

DPS' capacity for regional procurement could be further expanded in several ways, including support for improving kitchen facilities, regional infrastructure to increase produce supply year round, and better communication between districts and with growers about opportunities to sell to schools and how to make them work. The successes and obstacles at DPS provide lessons for other collaborations, which, though complex, offer potential benefits for all involved.

¹ FOCUS considers districts of 40,000 students enrolled to be "large" districts.



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Introduction

In September 2013, School Food FOCUS (FOCUS) partnered with the USDA Agricultural Marketing Service (AMS) on a cooperative agreement to enhance the regional produce procurement capacity of Detroit Public Schools (DPS). The goals of the project were to create benefits to producers through new market opportunities and to school-children through increased access to healthy fresh foods.

There are approximately 52,400 students enrolled in DPS, and while 84 percent qualify for free or reduced-price lunch, all students eat for free via the Community Eligibility Program.² The district spends about \$23 million per year on food, with about \$650,000 spent on regional produce in school year (SY) 2013-14. (See Appendix A: Detroit Public Schools Purchasing Data for more details.) Given the sizable and diverse agricultural production in Michigan, there seem to be opportunities for DPS to expand its regional produce purchasing and support Michigan agriculture while putting fresh, healthful foods on the plates of students who need it.

Activities

As designed, the activities of the project were to:

- outline the channels by which DPS procures regional produce, using mapping and supply chain visualization as a tool to better understand DPS produce–supply chains;
- determine the amount of regional produce procured by the district in SY 2012-13 and SY 2013-14;

- identify new potential suppliers of regional produce and establish or strengthen the necessary aggregation, processing, and distribution links to move this regional produce into Detroit schools; and
- investigate methods by which product information is transmitted through produce supply chains and identify opportunities to improve DPS' capability to report on the type and volume of its regional purchasing.

FOCUS worked closely on this project with DPS as well as Detroit Eastern Market (DEM), the city's long-running, nonprofit produce terminal and a DPS community partner. Significant input also came from current DPS produce suppliers.

FOCUS began the project with meetings in Detroit with DPS staff and the district's three key produce distributors, including its broadline distributor, herein referred to as *Broadline Foods*.³ These conversations, supplemented by procurement data provided by the district, provided a picture of the district's regional produce procurement methods for SY 2012-13.

Through these conversations and subsequent discussions, DPS, FOCUS, and DEM decided to target winter squash for regional procurement, due to its wide availability in Michigan. We also explored beets as an initial possibility. DPS had previous experience with winter squash and knew it was acceptable to students. Beets offered the opportunity to try a new product on the menu. (See *Appendix B: Pros and Cons of Potential Target Products* for the full list of products considered.)

² The Community Eligibility Program allows schools in low-income areas to offer free meals to all students without collecting individual applications verifying eligibility.

³ To maintain confidentiality, we have not used the real names of DPS' suppliers in this report. All italicized firm names are aliases.

DPS has purchased blueberries from a third-generation female farmer in southwestern Michigan for several years. FOCUS also researched and documented this supply chain as an example of a well-functioning, mutually beneficial district-farmer relationship.

Over the course of several months, FOCUS staff and a research consultant conducted phone interviews and site visits with various entities in the DPS produce supply chain, including produce distributors and processors, DPS' broadline distributor, squash growers, and Detroit Eastern Market. FOCUS staff and the mapping consultant also interviewed participants in the supply chain that provide regional blueberries to DPS. These interviews form the basis of *Section II: Produce Pathways*, including the supply chain diagrams and maps provided in *Appendix C*.⁴

Concurrently, Detroit Eastern Market introduced FOCUS staff to a Detroit-based, nonprofit food rescue organization which is currently expanding into food processing through a social enterprise venture and is interested in processing produce for DPS. FOCUS facilitated conversations with relevant players to encourage formation of a supply chain for winter squash and/or beets from regional farmers through the nonprofit's new processing arm, herein referred to as *Social Venture Processors (SVP)*, to DPS. While DPS did not end up procuring produce processed by *Social Venture Processors* in fall 2014, *SVP* is now approved as a vendor to DPS' broadline distributor, a critical step in positioning *Social Venture Processors* as a potential vendor to DPS. Knowledge gained in the process of building this supply chain and in the conversations with a range of players in the Michigan food system is detailed in Sections III and IV.

4 Over the course of the project, it became clear that beets would be difficult for DPS to integrate into the menu, so project partners decided to focus solely on winter squash. As such, beets are not represented in Section II.

Produce Pathways

DPS Procurement Context

DPS has significant purchasing power when it comes to produce—spending \$6.4 million on fruits and vegetables in SY 2013-14. Most of this is purchased through its broadline distributor, *Broadline Foods*, with whom DPS has a multi-year contract in place and through which it purchases the vast majority of its food. DPS spent \$5.7 million on produce from *Broadline Foods* in SY 2013-14, of which 4.8 percent (\$273,445) was regionally grown. DPS also purchases produce via two other distributors through the USDA Fresh Fruit and Vegetable Program (FFVP) and the U.S. Department of Defense (DoD) Fresh program. In SY 2013-14, DPS spent 9.2 percent (\$593,855) on produce through the DoD Fresh program, 64 percent (\$380,067) of which was produce grown in Michigan. Data on spending via the FFVP was not available for SY 2013-14 due to a change in the produce distributor’s tracking system. This program represents only a small percentage of DPS spending (\$104,913, or 2 percent of all produce spending, in SY 2012-13), but some of it is regional produce. As a result, the percentage that DPS spends on regional produce is slightly higher than the 10.1 percent attributable to Broadline Foods and the DoD Fresh program. This figure may also slightly underreport regional purchasing due to the difficulty maintaining product identity across the supply chain and reporting accurately on produce origins, as discussed below.

DPS Produce Supply Chains

Below, we outline several supply chains for the products that this investigation focused on, some of which are currently in use by DPS, while others are potential options for the future:

1. Nationally and internationally sourced winter squash
2. Regionally sourced winter squash
 - Pre-cut by conventional fresh cut processor
 - Pre-cut by alternative fresh cut processor
3. Regionally sourced blueberries

DPS has procured fresh, regional winter squash every fall since SY 2011-12, serving it as part of its Harvest of the Month program (generally once or twice per school year). DPS also began procuring frozen, regional blueberries the same year, which it serves once a week through the first half of the school year. Because DPS kitchens do not have preparation facilities equipped to wash and chop fruits and vegetables, all produce must be purchased in the form in which it will be served or cooked. For example, whole blueberries can be used, but squash must be pre-cut. (Based on previous experience, the chef prefers diced and

Table 1: Detroit Public Schools Produce Purchases, SY 2013-14

Procurement Method	Total Spending	Regional Spending	% Regional
Broadline Foods	\$5,744,400	\$273,445	4.8%
Department of Defense Fresh	\$593,855	\$380,067	64.0%
Fresh Fruit and Vegetable Program	\$104,913*		Not available
Total produce purchases	\$6,443,168	\$653,512	10.1%

* Data based on SY 2012-13 purchasing

peeled chunks of winter squash.) The produce must also be packed in containers and sizes that can be stored and handled in each school’s kitchen. For winter squash, this meant a preference for a 30-pound case containing six 5-pound bags.

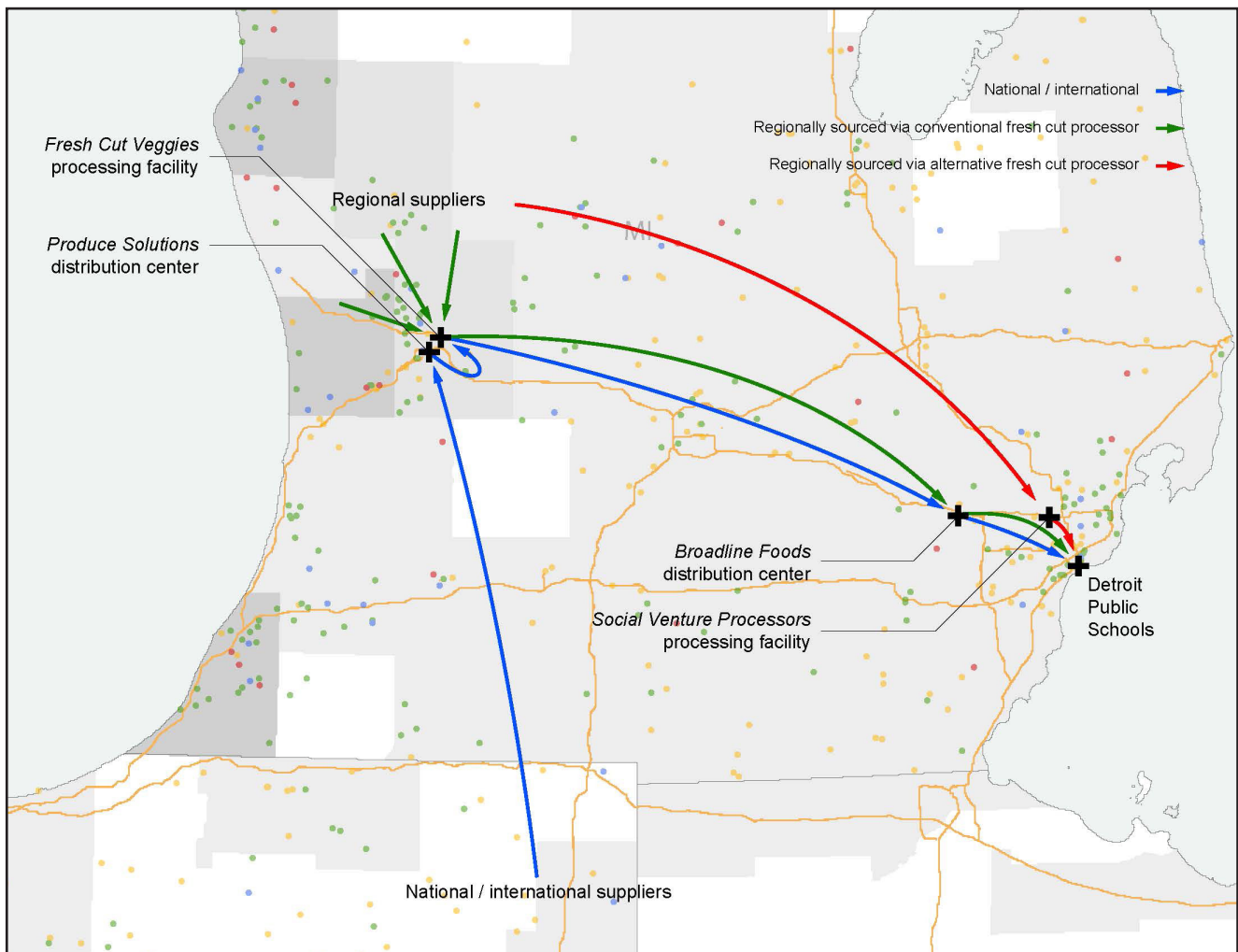
Nationally and Internationally Sourced Winter Squash

The blue arrows in Figure 1 represent the supply chain that would likely bring non-regional winter squash into DPS. *Broadline Foods* procures cut squash from *Fresh Cut Veggies*, a Michigan-based grower, processor, and distributor of value-added produce. When winter squash is not available in Michigan, *Fresh Cut Veggies* procures whole squash via another Michigan-based, small produce distributor, *Produce Solutions (PS)*.

PS sources winter squash nationally and internationally, depending on the time of year. It has its own logistics company, which enables it to pick up product from the packers’ locations in major growing regions and ship it across the country. Starting in late October, *PS* purchases Mexican-grown squash that is shipped from Nogales, AZ, where it has a shipping facility. Mexican production tapers off in the spring, and the supply shifts to Florida. After that, it shifts to Georgia and then North Carolina. *PS* purchases from Michigan suppliers beginning in August before starting the cycle again.

Product shipped from Mexico typically spends up to 4 days in transit before reaching the *Produce Solutions* distribution facility in Michigan. Representatives at *Produce Solutions* noted that the price for local product before the cost of shipping

Figure 1: DPS Winter Squash Supply Chains



Sources: USDA National Agricultural Statistics Service, U.S. Census TIGER, U.S. Census NAICS, FOCUS interviews

is typically similar to the Free On Board (FOB) cost of non-local product and remains steady at around \$11-14 per case no matter where the source. This indicates a potential price advantage for regional produce, as the processing for both regional and non-regional is done in the same location.

Once it has procured the whole squash from *PS*, *Fresh Cut Veggies* transports it to its own facility to wash, cut, and package the product. From there, the squash is sold to *Broadline Foods*, which transports it to its distribution center for repacking and transport to each DPS drop-off point.

Regionally Sourced Winter Squash

Pre-cut by conventional fresh cut processor

In fall 2013, DPS purchased Michigan-grown acorn squash via the supply chain outlined in green in Figure 1. *Fresh Cut Veggies* obtained winter squash from three farms in western Michigan that season. *Fresh Cut Veggies* washes, cuts, and packages the regional squash in Grand Rapids before *Broadline Foods* picks it up for distribution to DPS.

Pre-cut by alternative fresh cut processor

FOCUS and its partners have worked to catalyze the potential supply chain shown in red in Figure 1. This chain represents a new opportunity for DPS to source regionally grown hard squash, and potentially other produce, while collaborating with an innovative social enterprise that has not yet sold into the K-12 marketplace. This supply chain would connect growers who sell at Eastern Market in Detroit to DPS via *Social Venture Processors (SVP)* and *Broadline Foods*. *SVP* would peel and cut Michigan-grown winter squash (and potentially other root vegetables, such as parsnips) to sell to *Broadline Foods* for ultimate sale to DPS.

SVP is a for-profit subsidiary of a well-established food rescue organization that has developed facilities to cut, cook, freeze, and store a range of foods. *SVP* recently expanded its business model

to make its facilities available to a variety of food entrepreneurs and operate as a co-packer and processor, filling a need for processors willing to work with smaller institutions and enterprises. All *SVP* profits support its parent organization's operations and mission. *SVP* is eager to work with DPS, seeing alignment in their goals, and has stated its willingness to negotiate its pricing in the interest of selling to DPS.

SVP is prepared to source from regional growers that typically sell at Detroit Eastern Market (DEM). (It already works with some of these farms for other clients.) Farms that sell at DEM are typically from multi-generation family farms, most of whom use conventional agricultural practices. Some are as large as 1,200 acres, although smaller farms of 50–100 acres are also active vendors at DEM. A subset of these growers are Good Agricultural Practice (GAP)-certified. Ideally, as it develops its business model, *SVP* could become a reliable source for institutions such as DPS and even distributors like *Broadline Foods* to procure processed produce sourced from small to medium-sized regional farmers.

In order to supply DPS, *Social Venture Processors* had to become an approved vendor with *Broadline Foods*. After meeting with *Broadline Foods* staff in spring 2014, *SVP* completed the required paperwork. *Broadline Foods* approved *SVP* as a vendor in the summer of 2014, with the process taking under 2 months from start to finish. *SVP* believes that pressure from DPS may have helped expedite the process and observed later that *Broadline Foods'* requirements were not overly demanding and that little needed to change in their operation to become an approved vendor.

Though DPS has yet to purchase produce via this channel, the supply chain is essentially ready to be leveraged. The next challenge is the limited communication among DPS, *Broadline Foods*, and *SVP*, with a particular emphasis on achieving clarity from DPS about product specifications, volumes, and acceptable pricing. While *Broadline Foods*

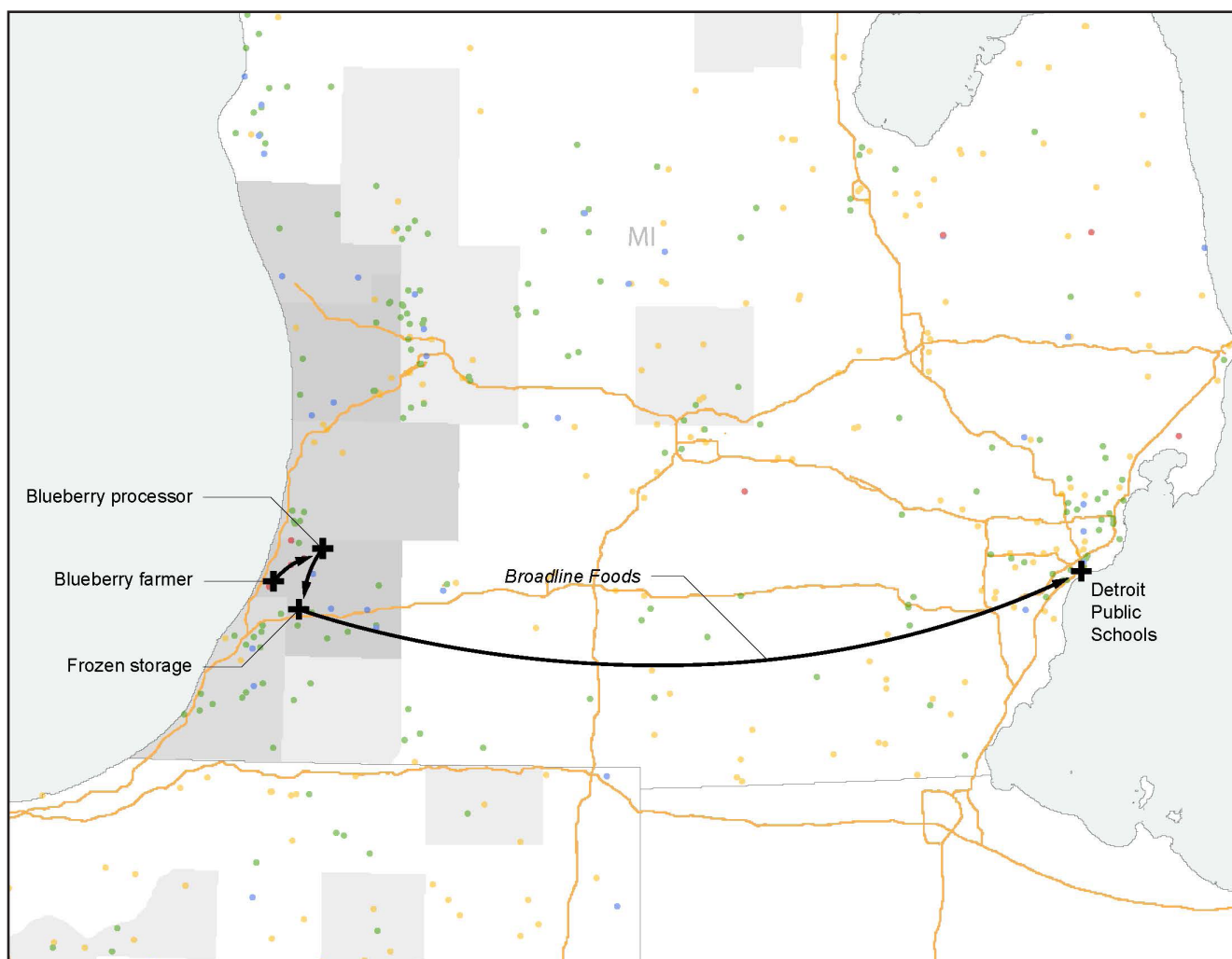
approved SVP as a vendor, the company has not purchased product from it yet. Broadline Foods says it has adequate sources for regional produce among its current suppliers, which may explain why it is not actively trying to procure from a new source. As noted above, when DPS has requested regional winter squash, *Broadline Foods* has sourced it from *Fresh Cut Veggies*. This reveals the important leveraging power of DPS, which could provide (simply by request) a strong incentive for *Broadline Foods* to work with new processors. Without this incentive, it seems unlikely *Broadline Foods* would choose to change a functioning supply chain.

Regionally Sourced Blueberries

Since 2011, DPS has purchased blueberries produced in southwest Michigan on a farm run by a third-generation black female farmer. The farm sells 60-65 percent of its annual production to DPS—about 90,000 pounds per year. (The remainder goes to other processors, with a small percentage left for the farm’s “u-pick” operation.) The farm is GAP-certified (and had been certified prior to selling to DPS).

As represented in Figure 2, the berries are transported by refrigerated truck from the farm to a nearby blueberry processing facility, which processes about 30 million pounds of blueberries per year for a range of clients. At the processor, the

Figure 2: DPS Blueberry Supply Chain



Sources: USDA National Agricultural Statistics Service, U.S. Census TIGER, U.S. Census NAICS, FOCUS interviews

berries are chilled, graded, packaged and frozen. Berries for DPS are then transported to a frozen storage site, where they remain until picked up by *Broadline Foods*.

The blueberry farm owns the berries throughout their processing and storage, until *Broadline Foods* picks them up for transport to Detroit. DPS lets the farm know the volume of berries it would like during the season and receives them in two shipments of frozen berries that are stored in freezers at schools.

The owner of the blueberry farm expressed her satisfaction with this arrangement, which provides a steady client for a large portion of her production. Based on this experience, she would be interested in selling to other interested school districts but has not formed any such relationships.

Product Origins

Overall, we found that the produce chains that supply DPS typically offer the customer relatively little information about products' geographic origins, although this seems to be improving with time.

For non-local product, *Broadline Foods* receives information on invoices and box labels that show the name and location of the packer (many of whom aggregate product from multiple farms). Coding on each box enables traceability by *Broadline Foods* to the field of origin in the event of a product recall, but information on product origin isn't available to DPS prior to purchase, nor is it regularly provided after purchase. Even *Broadline Foods* does not receive information (beyond coding for traceability purposes) that identifies the actual grower or the grower's location. The packer is as far up the chain as *Broadline Foods* typically "sees" for product that isn't coming from farms in Michigan.

For product coming from Michigan, *Broadline Foods* generally receives some information about the grower/shipper. For example, beginning this season, *PS* has indicated Michigan-grown product

on its invoices to *Broadline Foods*. This was a relatively easy change for *PS* to make: in the field used to indicate country of origin in its tracking system, it now indicates not only "U.S.-grown" or "Mexico-grown" but "Michigan-grown" as well. *PS* notes that it made this change in response to increased demand for local product and greater transparency among its clients.

However, this information on source is not, at this point, systematically relayed to DPS. Regular reporting that *Broadline Foods* provides to DPS is not sufficient to track procurement of Michigan-grown product. As a result, when periodically requested by DPS, *Broadline Foods* staff manually identify product from local sources by confirming purchasing orders back to a specific supplier. For the Harvest of the Month program, *Broadline Foods* informs DPS by email which Michigan farm grew a particular product and when the product is shipped to DPS, using information supplied by email or phone by its produce distribution partners. *Broadline Foods* indicates it is working to update its systems to be able to regularly track and report on produce origins. However, in addition to an investment in software and training, for this kind of system to function fully, *Broadline Foods* depends on receiving origin information from its suppliers, in the way that *Produce Solutions* is now able to provide it.

The DPS DoD Fresh vendor, a family-run produce distributor located in Columbus, OH, indicated that it is in the midst of instituting a new enterprise resource planning system that will enable improved reporting. For example, the new system will allow the vendor to more readily compile procurement data to determine how many apples were sourced from a particular ZIP Code. This distributor could then report on produce origin as requested, as well as maintain a system so that clients could go online to identify the farm that provided a given shipment of product.

Challenges of Selling Regionally Grown Produce to School Districts

In investigating the supply chains described above, some of the challenges to enhancing DPS' regional produce procurement became evident. Below are the biggest obstacles we identified that inhibit stronger connection between DPS and regional growers of various scales:

1. Logistics
2. Meeting product specifications
3. Advance commitments
4. Limited growing season
5. Institutional barriers to change

Some of these are particular to DPS while others may be germane to any district (particularly large ones) looking to purchase regionally.

Logistics

DPS does not have a central kitchen or central warehouse, so each of over 100 DPS locations, as well as the charter schools and other districts DPS services, must receive its own produce delivery. This level of service is more than most produce distributors can provide. This limits DPS to sourcing through larger distributors who are able to deliver to all their locations on a regular basis. One mid-sized distributor interviewed also expressed concerns about the cost of meeting food safety requirements and its ability to meet those requirements profitably given the narrow margins associated with K-12 sales.

At the outset of this project, DPS requested that any new regional products come through *Broadline Foods*, as it is most efficient for DPS to receive products via regular transactions with their broadline distributor. As a result, any new manufacturer or processor hoping to join this supply chain must be approved as a vendor by the broadline distributor. While the process to become an approved vendor for *Broadline Foods* did not prove onerous for *SVP*, it is another step that a business would need to take to enter the DPS

supply chain. This also gives *Broadline Foods* some discretion over the products available to DPS, since it controls approval of vendors, the number of vendors it actually buys from, and the price it pays for the product.

In general, when DPS requests regional product, it does not seem that its produce distributors try to find additional or smaller farmers to provide this product. For example, *Broadline Foods* will turn to *Produce Solutions* or *Fresh Cut Veggies*, which in turn go to the farms that they already source from regionally (in some cases through relationships with growers that have spanned more than a generation). They may look for new farms only if they cannot source the product using their current relationships. At this point, DPS' priority is on "Michigan grown" broadly, and the district hasn't expressed a large or consistent enough demand for particular farms or types of farms to influence how distributors source their regional product. As a result, the economic benefits of DPS' regional purchasing tend to be focused on growers already in the distribution system, rather than a broadening grower base that would include a greater diversity of farms. (DPS' purchase of regional blueberries is a notable exception.)

Further, given that distributors typically do not inform growers which clients actually purchased their product, "participating" growers may not be aware that their product is ultimately sold into the K-12 market. This raises some important questions about the degree to which these growers will be cognizant of school districts' effort to purchase their product in the absence of stronger efforts to communicate directly with them and work through this logistical complexity.

Meeting Product Specifications

Due to limited cooking facilities and storage space, DPS requires produce that has been washed, peeled, chopped, or otherwise prepared to its exact specifications and that is packaged in a form and size that can be stored in the space available. As a result, DPS cannot purchase uncut product

directly from farmers. A processor with appropriate facilities must be involved at some point in the supply chain. The regional growers interviewed noted that they tend to sell to wholesalers, who accept produce in bushels or bins. Selling to schools would require finding an intermediary processor or negotiating a sale from a processor to the district.

Advance Commitments

Much of the produce in Michigan is grown under contract so that the farmer can be assured of the sale and customers can count on receiving the supply that they need. The farmers interviewed in this project typically were unwilling to plant significant quantities without a committed buyer, and this tendency toward forward contracting was confirmed by several produce distributors. If potential new customers want to purchase from regional farmers at harvest, they will need to signal their demand as early as February, when farmers are making cropping decisions. Advance commitment and clear, specific communication from buyers are crucial to many farmers and a likely requirement if DPS wants regional product on a reliable basis. Many of the more regionally oriented distributors that we interviewed echoed the need for a pre-season commitment.

A district like DPS may find that its distributor could have trouble sourcing adequate supply if the district requests a regional product without significant advance notice. As such, strategic planning by the district is an important component of regional purchasing.

The ability to make future commitments is also important, given the investments businesses may need to make to expand regional purchasing. Examples include: a processor that would need to invest in new machinery (e.g., *Social Venture Processors* purchasing equipment to process winter squash); a distributor implementing new tracking systems; or a farmer that might lease or buy additional handling equipment, storage, or land to grow for a large school customer.

The risk of making such investments is particularly pronounced in the absence of secure purchasing arrangements. Alternatively, steady contracts with

districts have enabled some processors to make these investments, such as a supplier to the DPS Fresh Fruit and Vegetable Program that was able to invest in equipment for individually wrapping produce, in large measure due to DPS' demand for individually wrapped product through that program.

Limited Growing Season

DPS' options for fresh, regional produce are limited by the growing season, as many crops are reaching the end of the harvest season by the time school is in session. None of the distributors interviewed handled frozen regional winter squash.

Institutional Barriers to Change

Even in organizations with the best intentions, implementing change to entrenched practices can be difficult. Shifts in district procurement, distributor purchases, and processor sourcing require buy-in at all levels, from leadership to those executing day-to-day activities. As we attempted to activate the supply chain involving *Social Venture Processors* in this project, we found that commitment to innovative regional sourcing can also vary greatly at different levels within large companies. Enthusiasm for changing procurement practices can be limited, as it creates more work for certain staff, notably those involved in the on-the-ground operations. In the end, unless there is the right mix of incentives to change at all levels, the status quo will likely prevail. (See Section IV for further discussion of potential leverage points for encouraging change.)

In many cases, behavioral change is inhibited by the limitations of technological systems currently in place. For example, *Broadline Foods* has indicated that its coding system does not include a distinct field for the farm or even State of origin, so, for example, it is not possible to automatically generate reports on all of DPS' Michigan-grown purchases over a given time period. This current lack of product-identity information makes it difficult for clients to hold distributors accountable to regional purchasing goals.

Making Regional Produce Procurement Work in a Large District

Despite these challenges, DPS, like many other districts, successfully purchases and serves local fruits and vegetables. Based on the experience over the past year with DPS and the research into its supply chains, there are three notable elements to making regional procurement work in a large school district:

1. Product selection
2. Finding alignment
3. Communication and collaboration

Product Selection

Though it may seem obvious, it is important for a school district (and any partners working with it) to focus on products that will work well for regional procurement. We used a range of criteria to determine our target items of winter squash and blueberries (see *Appendix A* for the full list of each product's pros and cons), reflecting the many considerations that would need to be taken into account through the supply chain and into the cafeteria. For this project, the most important criteria turned out to be availability of supply and potential acceptance by students.

Availability is obviously important—picking a product without adequate supply may make procurement impossible from the outset. In this case, the selection of a target product was facilitated by Detroit Eastern Market, a knowledgeable community partner. Detroit Eastern Market was essential both in culling the list of potential products and suggesting potential growers once the decision to target winter squash had been made.

Student acceptability was crucial to the school district and ultimately to other partners. If the final menu item was not received well by students over

time, it wouldn't be featured again. While DPS was very flexible as to what the product could be, student acceptance could not be overlooked.

When choosing a product to procure regionally, it may also increase the chance for success to focus on procurement through a program like DoD Fresh or USDA's Fresh Fruit and Vegetable Program. Working with one distributor on a smaller volume of product may be helpful, particularly at the outset. Also, in the case of the DPS, DoD Fresh, and FFVP distributors, the school bid represented an important part of their business, and they noted their appreciation for the stability of the market, which has allowed them to invest in new equipment. As a result, they were particularly eager to meet DPS desires for regional product.

DPS' procurement of regional blueberries also reflects the value of choosing the right product. Blueberries are relatively simple to process and store well, and they are popular with students. Large quantities of blueberries are produced in Michigan, so the infrastructure exists to support the industry. This includes freezing capacity, and DPS purchases frozen blueberries so that they can be stored and used year-round.

Finding Alignment

Finding incentives

Ultimately, regional procurement must make business sense for all involved if it is to be sustainable. It can help for a district to make a business case for regional sourcing to its supply chain partners, either by highlighting incentives or leveraging shared strategic interests.

For example, in choosing a product, a district may want to find one that its distributor can, in turn, market to other customers once the regional

sourcing pathway has been established. Several distributors we spoke with said they were willing to find sources for regional products when customers asked for them because they anticipated expanding sales of the product to other clients, particularly in the retail and restaurant sectors.

Mission alignment

Working with mission-aligned partners can help smooth the development of new supply chain pathways. Supply chain actors, whether for-profit or non-profit, who share similar values may be willing to be more flexible, for example, by accepting lower margins, sharing infrastructure, or going the extra mile to bring new growers into the supply chain. Both *Social Venture Processors* and Detroit Eastern Market were prepared to do so in this project.

Communication and Collaboration

Setting expectations

Clear, prompt, and honest communication between partners is essential to enhance or create a supply chain pathway. The district must articulate its needs and desires, and suppliers must be forthright about what's possible for them to do. For example, in the case of DPS, *Broadline Foods* is willing to help DPS source regionally; at the same time, it helps guide the district towards what is most feasible within *Broadline Foods'* operating environment. In this relationship, the distributor has been willing to source regionally where possible and was quick to advise as to products that would not be easy for it to procure within the State during the school year.

In return, the district must be clear about its own needs and requirements, especially when it comes to product specifications. In this project, since DPS had previously served winter squash, the district knew that it wanted fully peeled, diced squash that would store and cook easily.

Pricing

Though it can be an especially sensitive topic, it is imperative that pricing not be avoided — discussing price is critical to developing supply chains. In our work with DPS and *Social Venture Processors*, the first steps to determine mutually workable pricing were slow: the processor's price depended on the volume DPS would purchase, and the volume DPS would purchase might change depending on the price. When *SVP* ultimately did provide a price for a peeled, diced winter squash, it proved too high, and DPS was able to procure a similar product via another processor for less. In a final interview, *SVP* noted that it would be willing to continue to negotiate on price in order to serve DPS. Clearly, communication about price and flexibility is crucial.

This also underscores the importance of budgeting and forecasting within the district—if a meal program can predict its usage and the amount it has to spend on a product, it can negotiate more concretely with its suppliers. The distributor, processor, and grower can then negotiate on prices among themselves. And as noted above, it is these commitments to pricing and volume that allow growers to plant appropriately and ensure supply, and processors and distributors to invest in necessary infrastructure.

Community partners

Partners outside of the supply chain, such as community-based organizations, can be useful in facilitating dialogue and sharing important information that a supplier might not have, particularly if the partner is already embedded in the community and knowledgeable about the regional food system, such as Detroit Eastern Market. A partner could also communicate with regional producers about opportunities to participate in K-12 supply chains, addressing the finding above that farmers may be unaware when their produce is used in schools or of the demand for regionally grown produce in school districts.

However, partners should always be aware of their limitations in the process. Ultimately, they cannot make business decisions for any of the players involved. Also, it is important to recognize when there are too many players in the mix. Partners should think carefully about the value that they add to the process and focus where they can play a clear and useful role. For example, buyers and sellers may be less willing to speak openly about price when those not involved in the transaction are part of the conversation.

Commitment

Lastly, the single most important factor in regional produce procurement by schools seems to be the commitment on the part of the district itself. Whether the barriers are many or few, enthusiasm and persistence, especially from district leadership, is critical. School food service leadership must continuously voice desire for regional products to suppliers. The five distributors interviewed in this research all acknowledged that their customers' demand for "local" had influenced the company's sourcing practices. Customers who request the product and hold their vendors accountable are crucial to building durable regional supply chains.

Looking Forward

DPS has continued to procure regional produce as well as other regional products in the first half of school year 2014-15. It maintained its Harvest of the Month program, including serving regional winter squash in December, and served produce grown on DPS' own farm early in the year. As a member of the School Food FOCUS Upper Midwest Regional Learning Lab, DPS sourced chicken drumsticks produced and processed in the Midwest for Food Day in October 2014. The district has also continued to procure milk and some baked goods produced in-State.

DPS plans to expand procurement of regional products, particularly protein and produce. The district will purchase regionally sourced chicken drumsticks, made from chickens raised without antibiotics, for the end of this school year and next. The Upper Midwest Regional Learning Lab is also exploring opportunities to purchase regionally grown legume blends.

For produce, there are new opportunities as DPS nears the end of its current broadline distributor contract. Whereas past contracts included produce with other foods and supplies, for this next term, DPS will issue a separate request for proposals for produce distribution, which may include a specific mandate for regional purchasing. This offers a chance for the district to contract with a smaller, locally based produce distributor well suited to sourcing regionally and with a mandate to do so from DPS.

There are several types of support that could be useful to DPS in its efforts to expand regional procurement.

- As noted in this report, the short Michigan growing season limits the produce available to DPS. Investment in infrastructure such as freezing facilities and hoop houses could help increase the supply of produce available year round.

- DPS' ability to receive, store, prepare, and serve produce would expand with targeted upgrades and new equipment, such as refrigerated cold tables, as part of a system-wide overhaul of meal program facilities.
- DPS harvests zucchini, tomatoes, corn, and other items from its own farm; however, it has had difficulty finding ways to wash and process these products. Support for processing equipment or partnerships with local processors could expand its ability to use this ultra-local produce.
- We found that many farmers do not see themselves as part of a supply chain to schools, so there is opportunity for better education to farmers and processors about selling to DPS, including what products are desirable, what the district requires in terms of product specifications and food safety, and which distributors the district works with. This type of outreach to farmers could help bring new participants into the school food supply chain and/or expand sales by current participants.
- DPS could benefit from continued opportunities to interact with other districts in the region who are doing or interested in regional procurement. For example, the DPS chef participated in a "Culinary Boot Camp" at Minneapolis Public Schools, where districts in the region shared ideas on regional procurement and learned new recipes for cooking with regional products. Such opportunities for face-to-face interaction, potentially also involving producers, processors, and other supply chain participants, could prove useful to working through the issues that arise in regional procurement.

Appendixes

- **Appendix A: Detroit Public Schools Purchasing Data**

These tables show details of the DPS meal program (i.e., enrollment, free and reduced eligibility rate, food spending) and produce procurement (methods, spending, percentage regional, and most common items) for SY 2012-13 and 2013- 14.

- **Appendix B: Pros and Cons of Potential Target Products**

Appendix B briefly describes the process partners used to determine the project's target produce items, with the full list of products considered and the opportunities and benefits each presented.

- **Appendix C: Supply Chain Mapping**

Appendix C describes the supply chain mapping and visualization activities of the project and is followed by a selection of the images developed.

Appendix A: Detroit Public Schools Purchasing Data

The tables below contain data reflecting details of the DPS meal program and produce procurement in SY 2012-13 and SY 2013-14. These were collected by School Food FOCUS in fall 2013 and 2014.

	SY 2013-14	SY 2012-13
Enrollment	52,413 students	53,985 students
Free/Reduced Rate	84% *	84%
Total Amount Spent on Food	\$24.6 million	\$20.5 million

*DPS participates in the Community Eligibility Program, which allows the district to serve free breakfast and lunch to all enrolled students.

Total Produce Spending by Distributor

Procurement Method	SY 2013-14	SY 2012-13
<i>Broadline Foods</i>	\$5,744,400	\$5,010,993
<i>Regional</i>	\$273,445	\$223,008
Department of Defense Fresh Program	\$593,855	\$775,000
<i>Regional</i>	\$380,067	\$430,575
Fresh Fruit and Vegetable Program*	\$104,913	\$104,913
TOTAL	\$6,443,168	\$6,124,057

* Data on DPS' SY 2013-14 purchases via the Fresh Fruit and Vegetable Program were unavailable, so SY 2012 -13 spending was used as an estimate.

Top Regional Vegetables Purchased (by spending)

SY 2013-14	SY 2012-13
Tomato	Celery
Acorn squash	Asparagus
Asparagus	Acorn squash
Celery	Potato
Vegetable blend	

Top Regional Fruits Purchased (by spending)

SY 2013-14	SY 2012-13
Apple	Apple
Blueberry	Peach
Peach	

Appendix B: Pros and Cons of Potential Target Products

At the outset of this project, FOCUS, DPS, and Detroit Eastern Market discussed a range of products to target in this project. FOCUS also spoke with DPS produce vendors for their opinion on the feasibility of sourcing the potential products regionally. Via several in- person and phone conversations, FOCUS staff gleaned the pros and cons listed below, and from a final list of four items, the DPS food service director chose winter squash, beets, and blueberries to target. (As noted above, DPS ultimately decided that beets would be too difficult to integrate into the menu.)

Apples

Pros	Cons
FFVP product	Too obvious a choice?
Widely grown in the United States	DPS already does local apples well (but are its Red Delicious coming from Washington and could they be replaced with MI-grown and more varieties?)
Well accepted by kids	Kids already eat apples. This wouldn't broaden their palate as much as a food that's totally new to them (although different varieties would be new).
Introduce kids to new apple varieties	
Already used by DPS/comfortable with it/ doesn't require new recipe	
If DPS purchases of Red Delicious are, in fact, from Washington, could potentially shift large \$ amounts to regional product	
Widespread disdain for red delicious, and K-12 desire to find local apples/other varieties	
Higher \$ volume item	
Opportunity to compare supply chain for red delicious to DPS's existing "various, sliced 2oz" and local options — good story to tell	
Potential for a year-round schedule of different varieties	
Potential to purchase surpluses of unusual varieties — get deals and help growers	
Can be frozen	

Asparagus

Pros	Cons
DPS would be excited	Does it count as green or not?
Grown widely in Michigan	Wouldn't work for FFVP
Would introduce kids to new food	Expensive (goes into DoD Fresh distributor at
Social Venture Processors could process it	Not widely grown outside Michigan
Available in spring (May 1 – June 15)	
Asparagus growers don't generally sell to schools, so could expand there	
DPS has menued a couple times, so some familiarity	
Potential to show increased purchases	
Good story about growers shifting from processing to fresh market and expanding into K-12	

Beets

Pros	Cons
DPS would be excited	Does not count as red
Grown widely in Michigan	Wouldn't work for FFVP
Grown widely around the country by farmers of various sizes	
Could show increased purchases — baseline for DPS = zero	
Social Venture Processors could cut it and maybe parboil it, also freeze it. DEM and DPS both want to work with SVP. Good example of non-mainstream supply chain partner	
Social Venture Processors is a non-profit, so cost savings may be possible, depending on its production efficiency	
Stores well and can be frozen	
Available later in the school year	
Would introduce kids to new food	

Broccoli

Pros	Cons
Can be an FFVP product	Limited growing range in the United States
Counts as a green vegetable	Growers may be deterred from growing broccoli due to labor shortages for harvest
If we select apples, good to choose a second focal product that is less mainstream.	DPS not excited
DPS broccoli purchases are now small and likely not local—could potentially show larger change in buying more and shifting to regional	Would need to contract in advance with growers because “there’s no surplus available,” per DoD Fresh produce distributor
Local season runs into early November	DoD Fresh produce distributor says local product is mostly grown by growers that aren’t GAP certified

Carrots

Pros	Cons
Would work for FFVP	Not new to the kids
Counts as an orange/red vegetable	Carrot coins from DoD Fresh produce distributor would be more expensive than the baby carrots from CA that DPS would normally buy (5 cents more per pound or a penny per individually wrapped pack)
Plenty of production in Michigan	
DoD Fresh produce distributor could cut coins (but not baby carrots)	
Available later in the school year/stores well	
Kids like them	
Familiar to DPS/wouldn’t require new recipe	

Kale

Pros	Cons
Grown locally in MI and across the country	Not currently familiar to kids
Grown by smaller farmers	Limited acceptability with kids in the future?
Counts as a green vegetable	Would need DPS to adopt a new recipe—too many steps to readily change procurement?
Could freeze it	Volume potential is likely to be low
A food that is becoming popular	Not an FFVP product, so would have to work through broadline distributor
Would introduce kids to a new food	DPS doesn't like this idea

Salad Mix/Lettuce

Pros	Cons
Counts as a green under USDA	Lack of viable local product. Michigan-grown romaine lettuce has performance problems. Celery cabbage not grown any longer in Michigan
Opportunity to research and/or involve greenhouse growers (but too expensive?)	Not an FFVP product
Introduce kids to a new food	Can't be frozen

Grape Tomatoes

Pros	Cons
Would work for FFVP	DPS hasn't asked to source this crop
DEM grower does grape tomatoes in large volumes	
Availability in Michigan	
DoD Fresh distributors has the growers in place	

Winter Squash

Pros	Cons
DPS would be excited	Not FFVP
Grown widely in Michigan	
Grown widely around the country by farmers of various sizes	
<i>Social Venture Processors</i> could process it	
Counts as orange/red	
Growing popularity in K-12	
DPS has not bought butternut before, but used acorn successfully	
Would introduce kids to a new food	
Could be good as a cosmetically imperfect second — savings and demonstration model?	
Available late into the school year	
Stores well	

Zucchini / Summer Squash

Pros	Cons
Works for FFVP	Doesn't count as a green veg
Long season	Not good for freezing
Plenty of local supply	
Grown on farms of all sizes and grown widely across the country	
DPS already uses in StopLight Salad which includes zucchini	
Could be grown at DPS farm and is already grown at many DPS gardens	
Widely used by schools	
Could be good as a cosmetically imperfect second — cost savings and demonstration model?	
Potential to show significant increase in purchasing given small current purchases	

Legend:

Detroit Public Schools (DPS)

Fresh Fruit and Vegetable Program (FFVP)

Department of Defense Fresh (DoD Fresh)

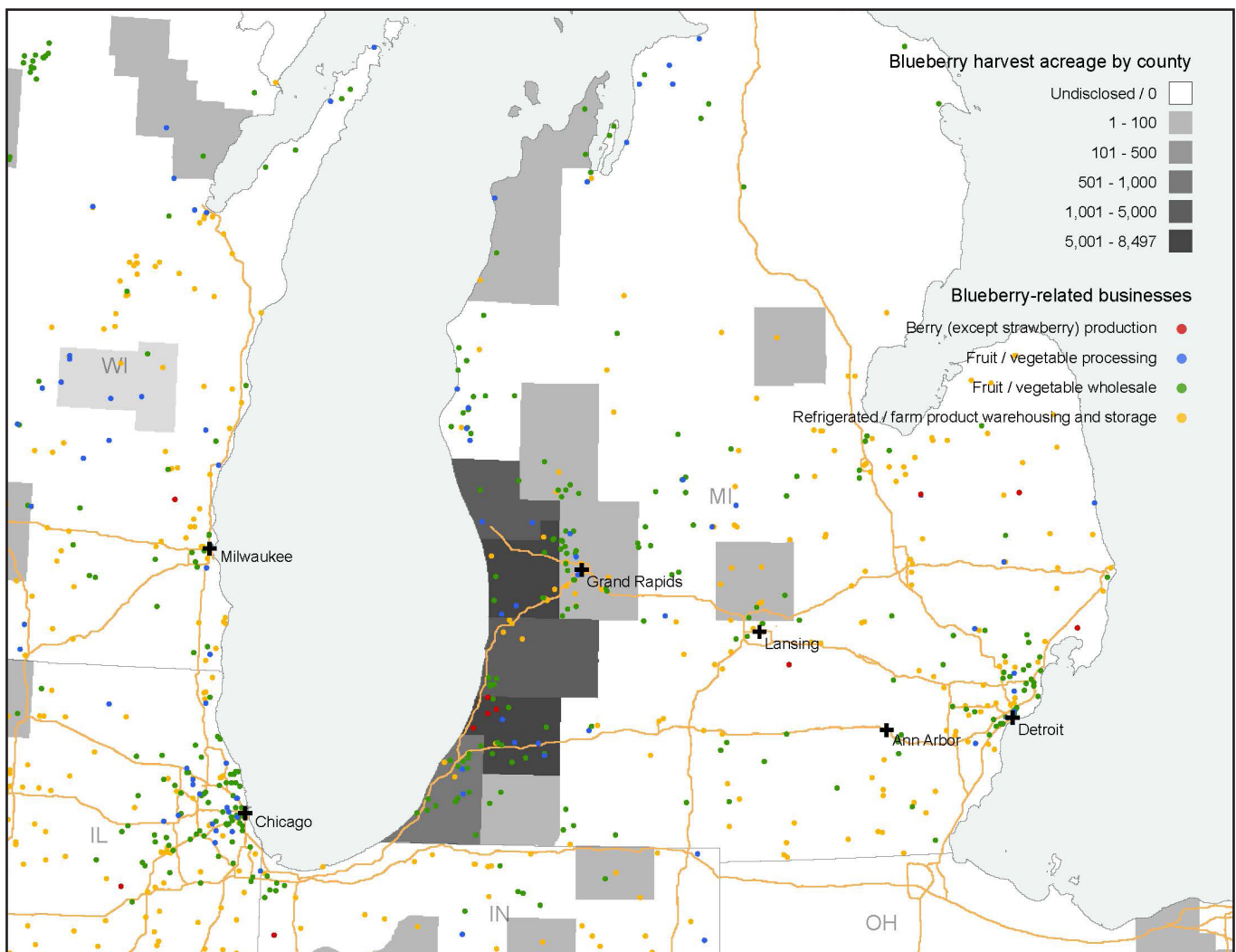
Detroit Eastern Market (DEM)

Appendix C: Supply Chain Mapping

One element of this project was to use mapping models to determine supply chain opportunities. However, the project timeline unfolded such that the target products were chosen without the mapping consultant team. Rather, our sense of availability of products and processing capacity came from Detroit Eastern Market and conversations with the produce suppliers to Detroit Public Schools about what they could source. The mapping models that were later created using USDA Census of Agriculture data confirmed what we had learned anecdotally—winter squash and blueberries are widely grown in the State and representative of the region (see Figures 3 and 4). Using this publicly available USDA data when initially choosing a type of produce to target could be useful if anecdotal evidence isn't adequate or available.

Similarly, business and industry data from the U.S. Census can be helpful in identifying potential partners for regional processing and procurement. As Figures 3 and 4 indicate, there are many fruit and vegetable growers and processors in Michigan. Without a partner like Detroit Eastern Market to suggest particular growers and a processor, this kind of list could be used to begin a search, limiting it to firms of the needed scale.

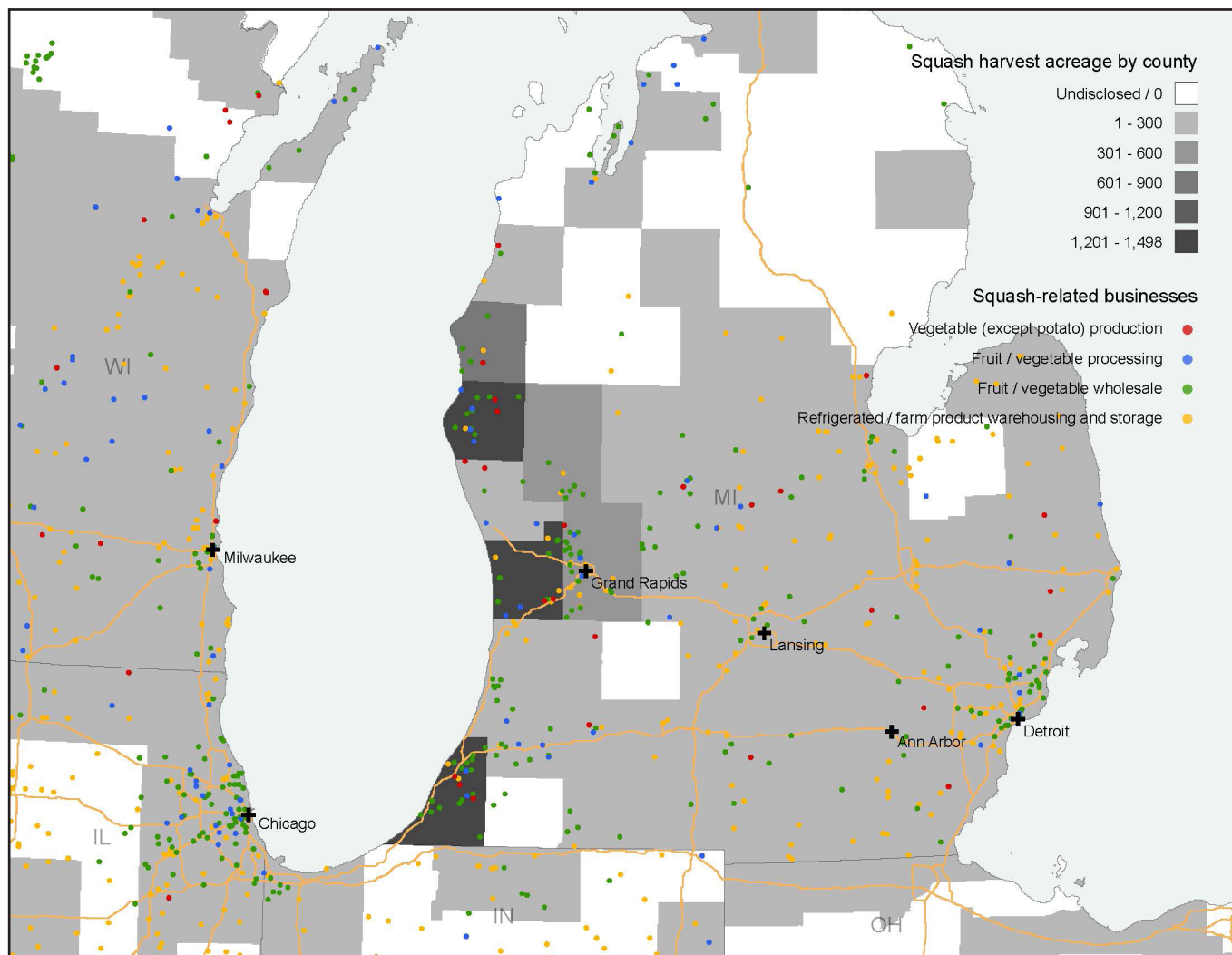
Figure 3: Blueberry Production and Processing in Michigan



Sources: USDA National Agricultural Statistics Service, U.S. Census TIGER, U.S. Census NAICS, FOCUS interviews

It should also be noted that these maps were useful within FOCUS in understanding the flows and sources of produce moving into DPS. FOCUS plans to continue using them to help explain supply chain intricacies to other districts, advocates, and other audiences.

Figure 4: Squash Production and Processing in Michigan



Sources: USDA National Agricultural Statistics Service, U.S. Census TIGER, U.S. Census NAICS, FOCUS interviews

