

A Project of Community F.A.R.E.  
Food - Advocacy - Resources - Education  
in collaboration with the Common Market Philadelphia  
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## Feasibility Analysis for the Frederick Food Hub



Photo credit: Full Cellar Farm

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# The Frederick Food Hub

**a collective vision**  
*to diversify, expand and safeguard a local healthy food economy that will preserve farmland, its integrity and biodiversity, in Frederick and surrounding counties, and ensure food access to the regional population.*



Community F.A.R.E.- Food, Advocacy, Resources, Education (F.A.R.E.) is a not-for-profit organization located in Frederick Maryland - where history, agriculture, vibrant communities and nature all connect in one place. Community FARE works hand-in-hand with hundreds of volunteers from Friends of Frederick County, Stream Link Education and Community Renewable Energy, under the umbrella of Land and Cultural Preservation Fund, Inc (a 501c3) to support healthy, vibrant, diverse and resilient communities in our region and the Chesapeake Bay watershed. Since 2004 we have been a steady voice promoting growth policies and education that speak to development in and around municipalities over the conversion of farms, woods and streams to subdivisions, roads and strip malls. Each year Maryland loses 17,000 acres of open space due to poorly planned development<sup>1</sup>.

Community FARE, founded in 2011, is joining the growing network of entrepreneurs in the USA that are using market forces to promote sustainable farming, public health, and to protect our precious soils, water and air quality. In 2015 we embarked upon a journey to learn more about the market demand, our local farm supply, and how to build a financially viable local food economy. We have documented much of our research interviews and questionnaire responses here. Throughout this study we identified challenges to sustainable land use management and opportunities for improvement as well as barriers to market entry for growers; Community FARE will work to build community partnerships to address those challenges.

The research was based on the premise that by creating the aggregation, distribution and marketing infrastructure (a “food hub”) to better connect the consumptive needs of urban Frederick and nearby urban centers with the production and sales needs of our regional rural farm community, the market demand for locally grown products will be able to flourish, and supply will increase to meet it.

It was also based on the growing market opportunity for local food. Since 2007 the number of farmers markets in the USA has increased 180%, we’ve seen that happen in our region as well. Food hubs around the nation have increased 255%, and in farm to school programs by 430%<sup>2</sup>. Millions of dollars are reinvested in communities around the nation with the purchases of local food.

An enterprise focused on selling farm product wholesale to institutional markets will improve the economic viability of our region’s farms, individual farm stability and expansion, agricultural service industry stability and growth, value-added production and incubation of new businesses and jobs, reverse the trend of farmland loss to suburban sprawl, provide market driven incentive for growers to improve their land stewardship practices, and preserve the rural culture of the Frederick County region. This is Community F.A.R.E.’s aspiration.

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<sup>1</sup>1000 Friends of Maryland, Land Preservation: <http://friendsofmd.org/index.php/priority-issues/land-preservation>

<sup>2</sup> Wallace Center, National Good Food Network, W. Gray presentation March 2015.

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## Executive Summary

Marylanders consume over 2 billion pounds of vegetables/year, yet we produce less than 200 million pounds/year and a good portion of that is sold outside the state<sup>3</sup>. With well over 90% of our food originating outside Maryland, our food dollars are also going out of state.



Frederick, Carroll and Washington Counties are some of the most productive agricultural counties in Maryland. Frederick accounts for 10% of all the state's farmland and has more organic farms than any other. Washington County ranks first in fruit, tree nut and berries, and Carroll County harvested 3283 acres in vegetables and has 517 acres in orchards<sup>4</sup>. And there are thousands of fallow acres of agriculturally zoned land.

Our year-long food hub feasibility study found strong institutional and retail demand for locally grown food, and a willingness on the part of growers to meet that demand. We also identified the key obstacles that must be overcome, and have identified priority steps that need to be taken to kick start the local food economy.

On the supply side, our research included a 34-question "Community Food Assessment" survey sent to 212 small/mid-sized mostly organic farmers, and a 25-question, in-person interview with 13 vegetable, fruit, and meat farmers. As of June 2016, 13 farms expressed interest in the Frederick Food Hub and signing onto the Frederick Food Hub Virtual Market Place (FFH-VMP), which will connect them to wholesale sales opportunities for their products. The initial 13 farms translate to 1166 acres in vegetable, fruit and protein production, with an additional 338 more acres available once markets are established.

As just one expression of the need for a food hub, most of the producers interviewed lack relationships with wholesale markets and the time needed to develop a trusted business relationship. As a case in point, Community FARE was able to help farmers communicate with buyers and has already supported the conversion of 40 fallow acres to vegetable production for grocery stores this growing season. Five of the 13 farms that show the greatest potential for fruits and vegetables have 404 acres in production and approximately 255 acres available to grow more product in the 2016 growing season (2- Carroll County, 2- Frederick County and 1 Washington County). Four cattle operations interviewed expressed strong interest in expanding into local markets. There are over 20 Amazing Grazers in the tri-county region with wholesale potential for beef, lamb and chicken. We have yet to scratch the surface of the production potential and have compiled a target list of 300 small and mid-sized farms in the tri-county area to interview for their interest in working with the FFH-VMP to market their products to regional institutions.

Critically, however, most fruit and vegetable farms in Frederick, Carroll and Washington Counties do not operate on a large enough production scale to enable easy access to the mainstream wholesale and distribution network. These same small to mid-sized farmers often

<sup>3</sup> Maryland Grown I: How we grow compares with what we eat, April 2015, Johns Hopkins Center for Livable Future.

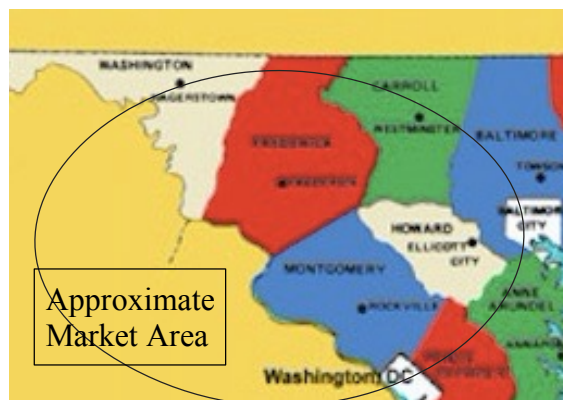
<sup>4</sup> <https://www.agcensus.usda.gov/index.php>

cannot adjust their budgets to compensate for business development, marketing or additional transportation and delivery methods.

There are about 40 farmers markets in the tri-county area that provide an important outlet for farmers to sell their food at retail prices. However, many of the high value farmers' markets in Washington DC are saturated and not accepting additional growers<sup>5</sup>, leaving growers with only local market options. Most farmers we spoke with would like to diversify their market options to include wholesale.

On the demand side, we conducted a 28-question interview with 17 managers of retail (6), retail food service (3) and non-retail food service institutions (8), many of which gave us product procurement data to share with the growers.

Community FARE found incredible untapped market potential in Frederick, Carroll and Washington Counties and the Washington DC metropolitan region. Estimated demand looks to be far greater than the current supply for local fruit, vegetables and proteins to be included in school lunches, college cafeterias, restaurants and retailers, indicating that scaling up production will be necessary. There are 8 institutions that want to buy from local farms as soon as possible, and a greater number expressed interest along with concerns relating to institutional procurement challenges. The public school system has begun to buy local sweet potatoes due to our efforts to bring an interested farmer to them. Every restaurant in the survey was enthusiastic about a food hub and wanted to learn more; there is demand for specific high-value farm products. We found consistently strong demand across all markets and sectors for locally grown food of all types; fruits, vegetables, grains, and protein.



A centralized food hub is the critical missing ingredient that can build the infrastructure needed to bridge the gap between supply and demand while overcoming the cultural and institutional barriers standing in the way of a more vibrant local food economy in the Frederick county region. An independent economic impact analysis conducted for this study showed that the Frederick Food Hub has the potential of having a regional economic impact of nearly \$8 Million over five years while creating close to 50 local jobs.

Moving forward we see three priorities steps that a local food hub would take:

1. **Production Planning:** Plan production in Fall 2016 (agreement on varieties, quantities, price range) with the most interested buyers and farmers for 2017 seasons.
2. **Basic Infrastructure/Staffing:** Secure support for first year production planning, infrastructure and staff, business planning, farmer training, and involvement in regional planning for distribution and coordination.
3. **Business Planning:** Under the guidance of regional professionals develop a business plan for the Frederick Food Hub.

Please contact Community FARE for more information and updates.

<sup>5</sup> M. Koch, Fresh Farm per comm May 2016.

## Acknowledgements

Many thanks to both the Town Creek Foundation (TCF) and the Foundation of Sustainability Initiatives/Fox Haven Organic Farm and Learning Center (FHOFF) for their support of this study, and to FHOFF for their initial support for the Community Food Assessment. In particular we thank TCF's Meredith Lathbury-Girard and Megan Milliken who asked challenging and necessary questions early on in the process. Their support for Community FARE has allowed us to take a leadership role in the local food system "revolution."

We wish to recognize the supportive contribution of the Common Market Philadelphia, in particular Haile Johnston, Sam Arnold and Hannah Jo King, for enabling us to demonstrate viability for a food hub in Frederick, Maryland, assess the right strategy for implementation and evaluate the local economic impact. We also wish to recognize the USDA *Know your Farmer, Know your Food* initiative for their programs supporting the many links in the local and regional supply chain. When a backbone institution endorses growing the local food economy, people and institutions take note.

We appreciate all the institutions and farmers who took the time to answer surveys and meet with us to discuss supply and demand. We absolutely expect that their investment will pay off in spades with a thriving local food economy in the near future.

Many thanks to the Wallace Center and the National Good Food Network, in particular Will Gray, for inviting Community FARE for food hub entrepreneur training and site visits, continual feedback, and the opportunity to learn through their webinars, documents and community of practice. And we must mention the importance of both Future Harvest - Chesapeake Alliance for Sustainable Agriculture and the Chesapeake Foodshed Network for their leadership and education on sustainable agriculture and food systems change, not only are they informative but also provide both the compass we (food entrepreneurs) need on this journey and the fundamental moral support to keep at it!

## Study Team and Document Contents

The study team for the Frederick Food Hub feasibility assessment was able to secure funding to build a team of project consultants and partners with needed skills to do the Supply and Demand, Sustainability and Business Model (feasibility) for the Frederick Food Hub. That work is reflected in this document.

The individuals and organizations contracted to lead the study and or contribute expertise and guidance to it were:

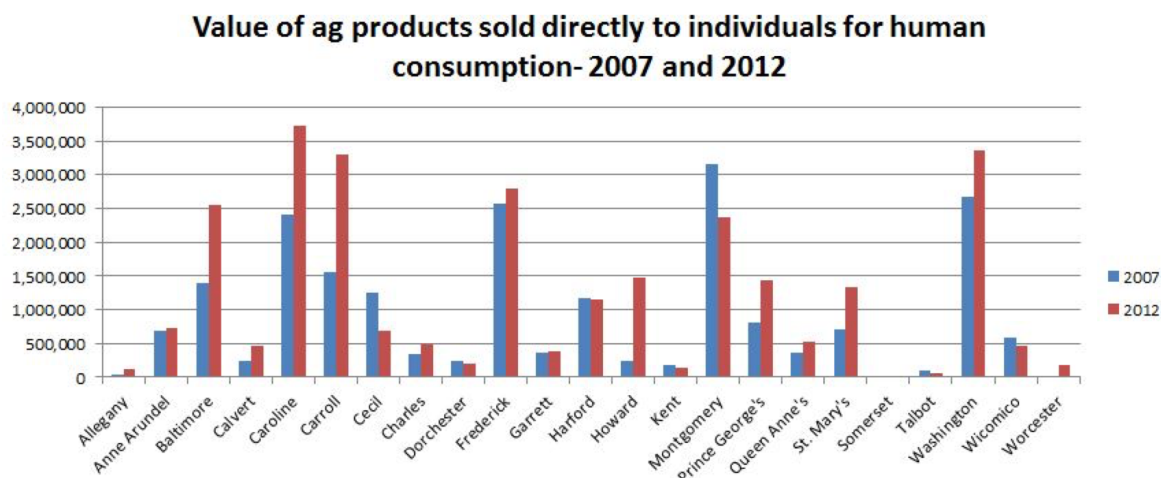
- Community FARE (Janice Wiles) – supply and demand survey coordination, data review and presentation and preparation of document.
- Common Market Philadelphia (Haile Johnston/Sam Arnold) – Guidance for oversight and review of supply and demand survey, and food hub economic impact analysis
- Community FARE's Advisory Committee organized educational events, helped with interviews, wrote articles, investigated properties and provided necessary feedback throughout the process.

## Introduction

Our nation’s industrialized food system contributes to decline in human health, negative environmental impacts and economic hardship for our rural communities - in particular the small and mid-sized farmers. The growing interest among consumers to buy locally and organically grown food may indeed be a response to the aforementioned challenges. In 2008, \$4.8 billion was spent on local food; by 2014 that number had increased 138% to \$11.4 billion<sup>6</sup>.

Our nation has seen an increase of 150% in the number of farmers’ markets over the past decade. The value of agricultural products sold directly to consumers in Washington, Carroll and Frederick Counties rose by \$2,900,000 between 2007-2012<sup>7</sup> (see Figure 1). Yet, despite this rapid growth in direct farmer-to-consumer sales, 99% of our food in the USA is purchased from venues that source through wholesale markets. Of the \$16.8 billion spent each year on fruits and vegetables in the Washington DC metropolitan area, less than 7% is spent on those produced locally<sup>8</sup>.

Figure 1 Between 2007-2012 direct sales of agricultural products from Washington, Carroll and Frederick Counties in Maryland increased \$2.9 million, from \$6.6 million to \$9.5 million.



The Frederick Food Hub (FFH), a place that markets local food, aggregates and distributes it to fulfill regional institutional demand is envisioned as an intervention to advance Community FARE’s mission *to help safeguard a diverse and healthy local food economy that will preserve farmland integrity and biodiversity and ensure that food grown here is accessible to residents of Frederick County and its regional neighbors*. Creating the infrastructure to connect farmers to fair and transparent market opportunities is perhaps the best way to improve the vibrancy, viability, and diversity of regional agriculture. It is, in fact, the disappearance of this infrastructure – both social and physical – that has contributed to the decline of rural economies in many regions of the country while food systems have shifted from a regional orientation to a global one.

<sup>6</sup> USDA Economic Research Service.

<sup>7</sup> Maryland Grown I: How we grow compares with what we eat, April 2015, Johns Hopkins Center for Livable Future.

<sup>8</sup> (Arcadia Food Hub, Alexandria VA <http://www.arcadiafood.org/programs/food-hub>)

In communities like Frederick and the surrounding counties, the disappearance of farm activity has been exacerbated by population growth of the Washington, DC and Baltimore suburban sprawl. The Frederick Food Hub seeks to counter these trends by offering a viable economic alternative for farmers and policy makers to justify investment in the growth of sustainable agriculture and implementation of wise land use legislation.

## The Food Disconnect

As demand grows, agricultural counties like Frederick, Carroll and Washington in Maryland are poised to grow more, sell more and eat more local food. The 3 counties combined have over 3300 farms and over 451,000 acres zoned in agriculture. Much of that farmland is tied up in commodity crops that are shipped elsewhere to feed animals. A look at the current numbers for Frederick County alone demonstrates what might be achievable for local food supply. The

A recent Johns Hopkins Center for a Livable Future study reports that most food produced locally does not stay within the state and is consumed by people outside of Maryland. And, that consumption numbers for fruits and vegetables are much higher than production numbers, meaning our food dollars are leaving the state to buy fruits and vegetables and transport them here.

County has 181,512 acres of land zoned for agriculture. In 2007, 70% of that was in use for crops of which 66% (120,948 acres) was in production of commodities/animal feed. The remaining crop land, 6,110 acres, could theoretically be utilized for human food<sup>9</sup>.

According to estimates made in 2011 (Fergusson, Frederick County) just 2,665 acres is needed to produce enough berries, melons, vegetables and fruit to satisfy resident demand. With 6110 acres of cropland currently not in use for commodity/animal feed production (see Figure 2) is more than enough to meet local fruit, vegetable, berry and melon demand. Within Frederick County alone we have the land available to supply more than enough produce to feed our own, and produce enough to send to other regional institutions.

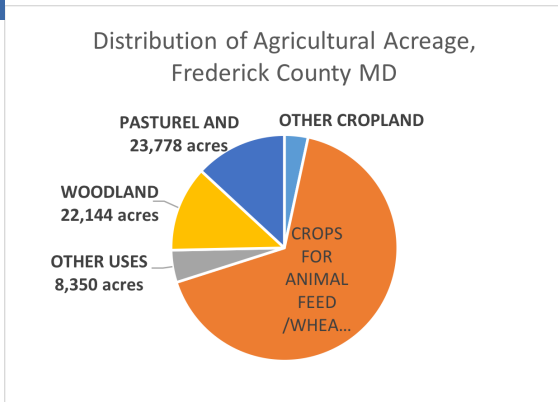


Figure 2 Total agricultural acreage: 181,512

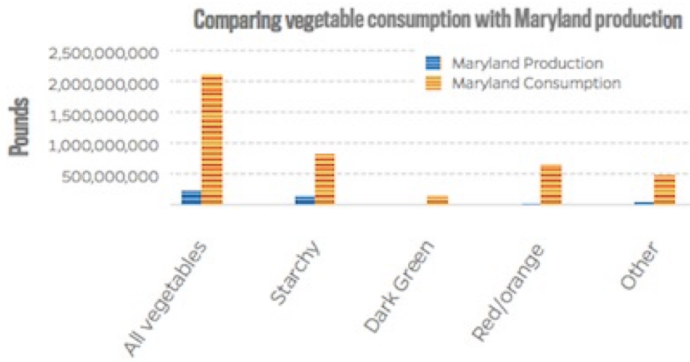
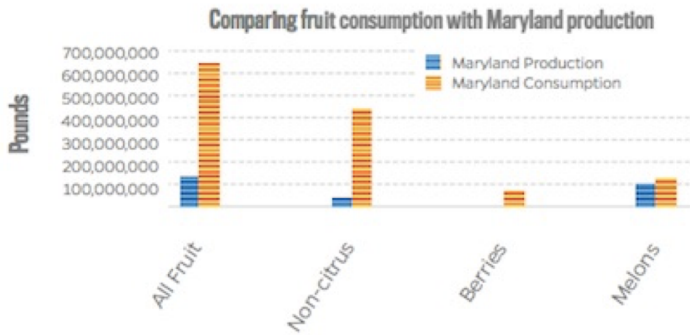
Total cropland acreage: 127,054:

- 120,948 is growing feed for animals and wheat
- 6110 is available for food and fiber production.

Community FARE collected data that show there is an abundance of fallow farmland on small and mid-sized farms. We understood from our survey that in large part farmers are reluctant to

<sup>9</sup> USDA Agricultural Census 2012.





increase acreage without secure markets for their products, and scaling up presents labor and investment challenges many are not able to face.

For the most part, small and mid-sized farms in Frederick, Carroll and Washington Counties do not produce enough to easily gain access to mainstream distribution networks. They often lack resources for business development, marketing and transportation.

In 2015, Community FARE learned that over 86% (of the farmers who responded to our survey, N = 55) said that marketing support was needed, and they were reluctant to increase production on fallow acreage without solid market opportunities. Those

same farmers collectively farm over 3,000 acres; among them they have another one-thousand acres lying fallow that would be farmed if markets existed.

Truth be told, markets for wholesale do exist, gaining access is the challenge. [This suggests that the supportive services of a food hub are needed to facilitate access to wholesale markets.](#)

### Snapshot of Frederick MD and the Frederick Food Hub work so far

In 2014, thanks to support from the Fox Haven Organic Farm and Learning Center, several organizations, businesses and farm owners we initiated our work with a grower survey. The survey was sent to 212 small and mid-sized farms in Frederick, Washington and Carroll Counties to assess interest and need in creating a value-based food aggregation/distribution and marketing center; “a food hub.” The survey results from 55 growers (see Appendix 1) indicated interest, potential and need for a food hub and created momentum to take the next steps in the feasibility analysis. Key challenges and opportunities underscored in the survey findings were:

- Sixty-five percent (65%) of the farmers expressed interest in having a local aggregation, distribution and marketing facility, (and that was before a presentation by the Wallace Center that clarified the importance of food hubs in building market demand and subsequent potential for scaling up).
- The respondents collectively farm over 3000 acres. In addition, they have amongst them 1,051 acres of fallow ground that many said would be put into production with easier access to markets; over 72% of the 55 survey respondents reported that if demand for their products were greater they would expand production.

- A majority of the producers who responded grow vegetables, fruits and eggs and sell them at farmers' markets. Many of the small and mid-sized farmers spend several days a week driving their produce to markets in Washington DC and Baltimore.
- Seventy-three percent (73%) of the survey respondents are USDA Certified Organic, followed organic practices, but were not certified, or a mix of the two.
- Eighty-six percent (86%) of respondents were interested in support for marketing their product.
- Fifty-two percent (52%) make only 25% of their living wage in farming. From follow up conversations we learned that all who were working as part time farmers were interested in full time farming.

Through subsequent interviews (December 2015-March 2016) we learned that many of the high value farmers' markets are saturated and not accepting additional growers. In 2015, Farm Fresh (<http://freshfarmmarkets.org/>) received 150 applications for its 13 Washington DC markets but could only accept 130. Several farmers we spoke with want market diversity, with much more of their market share in wholesale to institution.

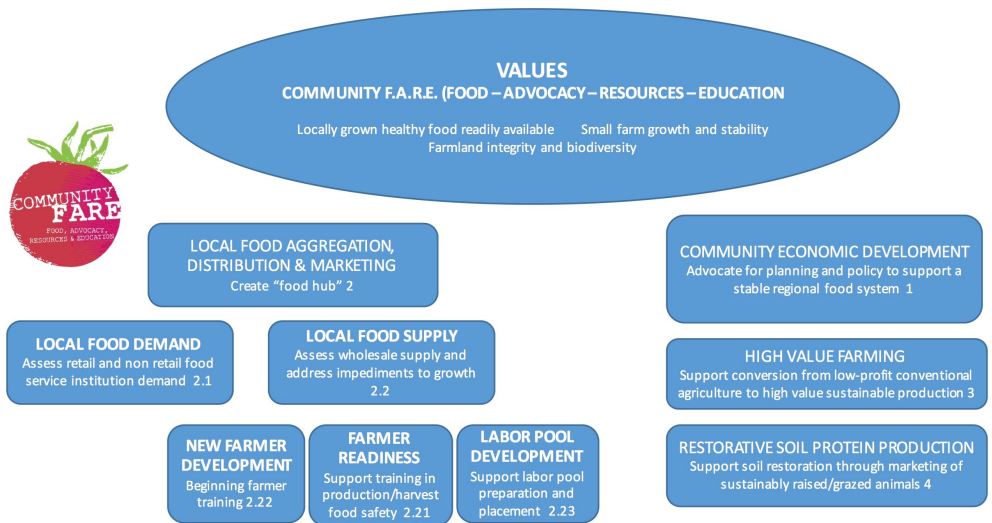
### **Barriers and Constraints to achieving Community FARE's value mission**

In a 2008 opinion poll in Frederick County, residents overwhelmingly said that one of the major threats to our region was loss of agricultural land and farming. Citizens and leaders alike have expressed their *hope* for the continuation and success of local agriculture yet we have no programs to aggressively address the farmland and farming losses that have plagued our region. Having data to substantiate claims and target projects is critical. *The future of agricultural production and the viability of productive, diversified, and sustainable farms are far too important to be left to hope.*

Community FARE asked questions during the survey and interviews with farmers to identify constraints and barriers with supply that need to be addressed for more land to be producing sustainably grown/raised product for institutional markets. The work plan diagram (Figure 5) illustrates what we see to be critical components to promote sustainable agriculture in Frederick County and surrounding jurisdictions.

Community FARE is working to address new farmer development, farmer readiness and labor pool development through partnerships and alliances for training, education and collaborative projects with government and private organizations in our region, state and nation. By creating a center to market, aggregate and distribute local food, we intend to enable more small scale farmers in our region to make a higher percentage of their income from farming, improve food security, create jobs and increase access to local food in food desert areas in urban and rural Frederick County and the surrounding region.

**Moving healthy food into schools, hospitals, supermarkets, restaurants, food banks and other institutions**  
**Community F.A.R.E.'s work in Frederick County MD and the surrounding region**



## Research and Analysis

### Food Distribution Collaboration and Competition Analysis

Community F.A.R.E.'s Frederick Food Hub business model is driven by a mission *to help safeguard a diverse and healthy local food economy that will preserve farmland integrity and biodiversity and ensure that food grown here is accessible to residents of Frederick County and its regional neighbors*. The Frederick Food Hub (FFH) is proposed as a wholesale distributor of locally and regionally produced foods, sourced directly from local and regional farms, in either a “market-ready” form or in raw form that it will process into a market-ready product. Frederick Food Hub will work directly with regional farmers to move their products to nearby markets, eliminating the various intermediaries typically present in the current long-hauling, industrialized food distribution chain. Additionally, we hope to create market demand for greater production, incubation of new food businesses and the growth of local processing activity. Community FARE believes that the food hub business will drive product diversification, expansion and access of healthy food for the citizens of Frederick County and surrounding jurisdictions. We believe that FFH fills a niche in our community; it complements other efforts to bring local food to our local population such as farmers’ markets, food to fork events, community-supported agriculture and home delivery of local dairy and products.

One of the critical decision points in this process requires an analysis of the many business operational models used to move local food to institutions. The options we consider are:

#### Wholesale Distribution

Model: “The Classic Model,” where the food hub owns trucks and a warehouse, and offers aggregation and distribution of local foods to wholesale customers.

Example: The Common Market, [thecommonmarket.org](http://thecommonmarket.org), or Cherry Capital Foods, [cherrycapitalfoods.com](http://cherrycapitalfoods.com)

#### Retail Partner Hub

Model: The food hub works with a retail chain on sourcing, pricing, and marketing of local foods. The food hub might take care of the aggregation as well, and lease warehouse space from the retailer’s warehouse.

Example: Good Natured Family Farms: <http://www.goodnaturedfamilyfarms.com/>

#### Marketing

Model: The food hub develops a local brand, packaging, and marketing material to differentiate local products, and coordinates logistics and relationships between conventional distributors, transportation logistics groups, and the farmers. The food hub does not take possession of food and is therefore an “infrastructure-less” food hub.

Example: Red Tomato, [www.redtomato.org](http://www.redtomato.org)

#### Virtual Food Hub

Model: The food hub sets up an online marketplace where farmers post what foods and quantities they have available, and buyers can order online at specified times. Buyers and sellers have hard deadlines for posting, ordering, and delivering food to an aggregation point or directly to customers.

Example: Chesapeake Farm to Table: <http://www.chesapeakefarmtotable.com/about/>  
Example: Lone Tree Foods: <http://www.lonetreefoods.com/how-it-works/>

### **Producer Co-op:**

Model: The food hub of growers works together to coordinate crop production to complement one another rather than compete. They grow for their own markets and grow for the co-op that works to provide market access. The markets are divided fairly and decisions are made cooperatively. The co-op provides services that each individual farmer could not give on his/her own

Example: Tuscarora Growers Cooperative: <http://tog.coop/>

Example: Lancaster Farm Fresh: <http://www.lancasterfarmfresh.com/>

### **CSA Food Hub:**

Model: The food hub buys food from farmers in the region, aggregates it and distributes it to individual consumers who place subscription or weekly orders for mixed

Example: Hometown Harvest <http://hometownharvest.com/>

There are many food hubs and businesses developing in our region that can support our goals or conversely compete within the local food space. Our attempt in this section is to analyze nearby and regional organizations and businesses aggregating, distributing and marketing local food, as well as wholesale distributors selling food to institutions in our area. We seek to discern where there is potential collaboration for improvement of the regional food system, or if a business could compete and perhaps even lessen the likelihood of Community FARE promoting its values and achieving its goals.

The following list is comprised of suggestions from colleagues in our regional foodshed and from the Wallace Center list of “Food Hubs” and a web search for nearby values-based food distribution hubs. When conducting interviews with retail and non-retail institutions in our region we learned of wholesale distribution businesses that sell produce and meat to them; for the most part these businesses do not share our value of supporting local farms, protecting farmland or providing healthy locally grown food access to the local population. They are in the business of supplying food and, in general, their sourcing decisions are based on the best (cheapest) price. Some of them are working to source locally; just one has reached out to farms in this area and will begin in 2016 to source from a Carroll County farm.

In order to simplify this analysis and recognize the differences between the organizations and businesses, they are categorized:

- Non Profit Value Based (NPVB), local food wholesale to institution (including restaurant)
- Cooperative Value Based (CVB), local food wholesale to institution (including restaurant)
- For Profit Value Based (FPVB), local food wholesale to institution (including restaurant)
- For Profit (FP), wholesale to institution (including restaurant)

<b>NPVB, CVB, FPVB, FP</b>	<b>Value</b>	<b>Food Source</b>	<b>Customer Base (include County)</b>	<b>Overlap (considering values)</b>
NPVB: Arcadia Foods, Alexandria, VA	Equitable/sustainable local food system in Wa, DC area	Unable to get specific information, believe small to mid-sized farms in VA	Institutions and Individuals (CSA mobile market)	No
NPVB: Local Food Hub, Charlottesville VA	Local food access	5-10 acre (avg) farms in VA	Institutions and CSA, Charlottesville, DC	No
NPVB: Poolesville Food Hub, MD	Local food access, in study phase	Plan in development, most likely Montgomery County Agricultural Reserve	Montgomery County/DC	No
NPVB: Common Market Philadelphia	Strengthen regional farms, local food access to Philadelphia community	Farms (avg size 125 acres) in NJ, PA, MD within 150 mile radius	Public and independent schools, universities, hospitals, retail food coops, supermarkets, non profit organizations, elder care facilities, value added producers, food trucks	Not currently.
CVB: Garrett Growers (100% farmer owned)	Sustainably produced food, marketing service at low cost to growers	Small and mid sized Garrett County Farms	Local (Garrett Co) restaurants, grocers and through a weekly Veggie Box subscription delivered to homes and businesses.	Could be product source
CVB: Valley Co-op	Community involvement and sustainability	Small and mid sized farms	Individuals: retail and online sales, Hagerstown MD	Source from growers in tri-county area
CVB: Common Market Coop	Sustainability through food purchases	Organic/150 mile radius, buy from 12 farms in Frederick, Washington and Carroll Counties	5100 individual members and their families	Yes, but CMC is interested in buying from food hub and gave us a list of products
CVB: Tuscarora Growers Coop	Organic, sustainable farms	44 member producers and an additional 15 growers	PA, DC, MD retailers, restaurants, CSAs and farmers markets	Some competition for markets
FPVB: Hometown Harvest	Local, sustainability, support small farmer extend growing season w greenhouses	33 MD farms, 13 PA farms, 4 VA farms	Delivery to homes in DC, MD, VA using 5 refrigerated trucks	Source from local farms.
FPVB: Chesapeake Farm to Table	small farm support, sustainability	18 small sustainable farms	Restaurants in Baltimore, online ordering	Not currently.
FPVB: My Organic Market	To protect and restore the environment	100% organic, interested in local	Retail grocery stores in MD (8), PA (1), VA (5), Washington DC (1), 4 more stores coming soon	Not currently.
FP: Performance Food service, New Windsor MD	X	Unsure	Institutions, offer menu planning, special orders	No
FP: Coastal Sunbelt, Savage MD	X	Hired person to find local farms, have begun sourcing in Carroll County.	Sell non-locally grown food to institutions.	Very little now, but are actively pursuing sources in tri-county area
FP: Food Pro (formerly FPC), Frederick MD	X	unsure	Restaurant supply, food service distributor in N VA, MD, DC and PA	No
FP: James Avery Clark and Sons, Frederick MD	X	Jessup MD	Distributor of food to 200 restaurants and other institutions in Frederick City and County; small, uses fax and telephone only.	No

This analysis reveals that there is most likely a lot of space for collaboration and networking to augment locally sourced sustainably grown farm product in our community. We will probably encounter competition for product with the Common Market Co-op (Frederick, MD), the Valley Co-op (Hagerstown) and with Hometown Harvest. However, our aim is both to support farmers who wish to move from direct sales to wholesale, and who wish to expand production so that we enhance the movement of local goods and support the local farm economy. Increasing demand is a strong driver for increasing production. Additionally, while we did not analyze the potential supply and demand for value-added product; there appears to be ample interest to investigate that further.

## Wholesale Demand for Local Food

Potential markets for the Frederick Food Hub (FFH) were identified and categorized by 1) retailers, 2) retail food service, and 3) non retail food service. Breaking this down further we sorted potential customers:

- Retailers – food co-ops and grocery stores
- Retail Food Service – restaurants and coffee shops
- Non Retail Food Service – institutions and caterers

Community FARE (CF) interviewed 6 retail, 3 retail food service and 8 non retail food service institutions using a 28-question questionnaire to assess potential markets and interest. CF's team was comprised of at least 2 interviewers, one who served as a scribe.

The survey questionnaire was designed to obtain information from potential markets in order to assess strategic opportunities and potential, such as: business operation, core values, purchasing and replenishment processes (including ordering, delivery and billing), local sourcing and local sourcing interest, quality and packaging requirements, customer demographics and barriers to sourcing food locally.

Below are the specific questions asked to potential buyers, procurement managers, owners and chefs.

### Operations

1. What is your ordering process?
2. How often are items ordered?
3. How do you place your orders (phone, fax, email, website)?
4. What are your delivery expectations? (pick up, delivery, etc.)
5. What types of products are you interested in?
6. How is your food service operated?
7. How many meals do you serve on a regular basis (day/week/month/year)?
8. Do you cook from scratch? What kitchen constraints or cooking restrictions do you have?
9. What are the demographics of your customers?

### Food

10. What drives your purchases: product quality, social values, or price [quality organic for produce, pastured for meats, dairy, poultry, eggs]
11. How do you value the local / organic / conventional options? (local/organic; local/conventional; organic; conventional)
12. Do your customers care or ask for local or sustainable foods?
13. Do you purchase locally produced agricultural products? If so, what local products do you purchase?
14. For locally produced items, how important is it to maintain the identity of farms producing them (branding)?
15. Is buying local a stated priority for your business or administration?
16. How much cost flexibility do you have for higher quality items?



17. What are your quality requirements for produce, dairy, and animal products? [USDA grades; organic vs. conventional, pastured animal vs. CAF products]
18. Do you require food to come from GAP certified farms?

### **Vendors**

19. How much of each item do you purchase every year and what price do you pay?
20. How many suppliers do you have?
21. Who are the vendors you work with? Do you have a broadline distributor? Do you have a produce vendor in particular?
22. Can your current vendors meet your demand for local food?
23. How much do you buy from regional sources?
24. Are there products you wish you could have that you can't currently find?
25. How much flexibility in order size is important?
26. What barriers are there to sell to you?
27. Does Fresh Point deliver to you?
28. How important is buying from one vendor for you?
29. What do you see as barriers to purchasing more locally produced foods?

## **Retailers – food cooperatives and grocery stores**

In Frederick, Carroll and Washington Counties there are approximately 100 retail grocery stores, including food cooperatives. Not included in this number are the many corner stores and country retail locations (restaurants that also have a retail counter) that sell goods but aren't in the grocery business. In addition, there are farm stands that aggregate foods from farms and that could serve as retail outlets. With one exception, Community FARE interviews were focused on retail outlets where clients seek to purchase local and sustainably grown food, i.e. the "low hanging fruit" markets.

One retailer chain with stores throughout the Mid Atlantic has set itself a goal of sourcing 15% local by 2020. It is unclear at this point if this retailer will use the services of a food hub for its produce; their expressed preference is to work directly with mid-sized farms directly. Another retailer is interested in working with a food hub, but does not order online and will need to inspect the food hub facility before agreeing to work together (i.e., this will not work for a virtual food hub).

Community FARE was able to obtain lists for products that these retailers typically buy - something that should help guide growers in their 2017 planning.

## **Retail Food Service – restaurants and coffee shops**

There are hundreds of unique, family, menu, sit down, casual and fine dining restaurants in Frederick, Washington and Carroll Counties. Among them there are top chefs, restaurant events and special attractions, and ample opportunity to not only supply the normal produce from our farms but also to test out new varieties for our chefs to work with. Additionally, there are coffee shops, sandwich shops, specialty pizza places and innovative eateries starting up in Frederick City that draw hundreds nightly.

We chose to interview a traditional Frederick restaurant owner, a downtown restaurant that has been buying local for decades, and another newer restaurant that has been buying and promoting local since it opened 7 years ago. We didn't even scratch the surface within the restaurant scene; there is tremendous opportunity to explore.

Due to the hectic and constant -demand -nature of the chefs' job, it has become apparent that the only way to get their attention is to offer - and show them - product. Having product lists in hand and going to their place of business may be the best way to begin to build those relationships. Farm to Fork, an annual event in Frederick County that celebrated local food in restaurants, will not continue in 2016. Aside from the few restaurants who have made the effort to find farmers who can produce for them, and deliver - all with relative ease of transaction - there are few easy opportunities for chefs to find and use locally grown fruits, vegetables and proteins.

### **Non Retail Food Service – institutions and caterers**

There are three college campuses in Frederick County, two in Carroll and two in Washington County. Frederick County Public School system alone has 68 schools and in 2015 there were 40,720 students enrolled; the schools serve over 20,000 meals each day. There are 25,551 students in the Carroll County Public Schools, and more than 22,000 in the Washington County Public Schools. The Maryland School for the Deaf, a state institution located in Frederick City, serves about 500 meals/day. There are 32 private preschools, elementary, middle and high schools in Frederick County alone with approximately 3600 students. There are correctional institutes, hospitals, retirement and assisted living facilities where meals are prepared daily for residents and visitors.

The public school systems serving the 3 counties service well over 60,000 lunches daily. The potential is much greater than that. And then there are the colleges and universities. We believe that with the pressure on to increase local food access, there will indeed be a demand within many of the schools in the near future. Getting started with several of these opportunities and testing them will clarify the processes, the challenges and the preparedness necessary for the 2017 growing season planning.

## Wholesale Supply of Local Food

As demand grows, agricultural counties like Frederick, Carroll and Washington in Maryland are poised to grow more, sell more and eat more local food. The 3 counties combined have over 3300 farms and over 451,000 acres zoned in agriculture. Much of that farmland is tied up in commodity crops that are shipped elsewhere to feed animals. A look at the current numbers for Frederick County alone demonstrates what might be achievable for local food supply. The County has 181,512 acres of land zoned for agriculture. In 2007, 70% of that was in use for crops of which 66% (120,948 acres) was in production of commodities/ animal feed. The remaining crop land, 6,110 acres, could theoretically be utilized for human food.

For this Feasibility Study, 13 farms were chosen for more in-depth interviews from the dataset developed during our 2014-15 survey, from our personal contacts at open markets, from the Amazing Grazers Network farms (Appendix 10), Maryland Department of Agriculture Certified GAPs farms and USDA Certified GAPs farms within Frederick, Carroll and Washington Counties (Appendix 11) and from the USDA/MDA list of Certified Organic Farms in Frederick, Carroll and Washington Counties (Appendix 12). The farms were classified as fruit farms, vegetable farms, meat farms and diversified farms (where the farm produces fruits, vegetables, meat and eggs).

Community FARE conducted on-farm interviews to see their operations and more clearly understand the farmer and their family's personal and business challenges and opportunities. During those farm visits we asked thirty-four questions (below) about general farm operation information, farm product, wholesale market readiness of product, marketing and sales, farm expectations from a food hub, and other needs and interests.

1. How long have you been farming?
2. Where is your farm located?
3. Is farming your full-time (or primary) occupation?
4. Briefly describe your farming operation
5. How much land do you farm?
6. Is your farm currently operating at full capacity?
7. Do you have plans to expand (or contract) your farming operations in the near future?
8. What is produced at the farm?
9. What are the "marketable" products?

### Frederick County

- 1308+ farms
- 181,512 acres zoned for agriculture
- produces \$150 M/yr in agricultural products
- more farms/county of any in MD
- more certified organic farms/county of any in MD
- 10% of all the state's farmland

### Washington County

- 860 farms
- 129,600 acres zoned for agriculture
- ranks 1st in Maryland for sales of fruits, tree nuts and berries
- 1st in inventory of hogs, pigs and ducks
- 3rd in inventory for sheep and lamb

### Carroll County

- 1150 farms
- 140,000 acres zoned for agriculture
- produces \$87 M/yr in agricultural products
- average farm size is 139 acres
- 3,283 harvested acres in vegetables

10. Is there a product or products that you specialize in or have a reputation for?
11. What is the annual volume produced at your farm?
12. Describe the volume in terms of seasonality.
13. Are there specific production cycles that pertain to your operation or type of operation?
14. Wholesale Market readiness of products:
  - What do you produce that is market ready for wholesale trade? How so?
  - What do you produce that is not market ready for wholesale trade? What needs to be done in order to make it market ready for wholesale trade?
15. What resources do you have at your farm (or at your disposal) to prepare products for market?
  - Do you have any of the following: packing line for produce, sorting, grading, storage, cooling, refrigeration, and freezing facilities.
16. Do you participate in any certification programs such as organic certification, food safety certification, GAP certification, special product licenses (e.g., raw milk license), or any other regulatory or voluntary certification program? Please describe.
17. Do you have any barriers to accessing capital?
18. Describe how you sell the production from your farm?
  - wholesale / direct retail
  - sales handled internally at farm by owner, operator, employee
  - works w/ external agents or brokers or other (e.g., member of wholesale cooperative).
19. Describe customer base
20. Describe experiences with various customer types, especially any experiences with wholesale distributors (including cooperatives)
21. If you are already selling wholesale, describe the following:
  - communication with customers
  - system for filling orders, packing, and shipping
  - ordering cycle by week and season
  - how you get your product to market
  - preference regarding delivering to your customers or having them pick up at farm
  - producer willingness to supply under contract at fixed price
22. What are your terms of payment with your wholesale customers?
23. If you are selling directly to a wholesale customer, how do you come up with a price?
24. Do you have any fixed or long-term pricing (and / or volume) arrangements with any customers? If not, do you have an interest in this sort of arrangement?
25. What arrangements do you have with brokers, sales agents, cooperatives in terms commission rates or other means of payment for their services?
26. How much time do you spend with sales and marketing?
27. Is it important to you to maintain your farm's identity or brand in the market?
28. How important is the "brand" and "identity" of the customers you sell to, especially if they are re-selling your products (as in the case of wholesale distributors)?
29. What barriers and / or obstacles do you face in trying new or alternative approaches to sales and marketing?
30. What sort of services could a wholesale distributor offer in order to interest you in working with them? (This can include sales & marketing services, facilities, packing, cold storage, processing and / or other market preparation.)
31. What terms of payment do you expect from a wholesaler?

32. What are your expectations regarding problem and / or dispute resolution? (includes quality issues, contractual disputes (i.e., price adjustments, changes in market situations, etc.)
33. Are any of the following points important to you with regard to the customers you work with?
  - Ownership
  - Legal organization that provides opportunity for vendor ownership such as a cooperative or shareholder in other-than-cooperative legal structure
  - Transparency
  - Core values and mission
  - Fair trade
  - Terms of payment
34. Describe how you would envision working with a wholesale distributor like the Frederick Food Hub
35. Do you have interest in:
  - identifying workable economic models to increase value/acre
  - business planning for scaling up and potential financing for it
  - extending your growing season:
    - Would you be interested in extending your growing season? (some growers might not, for quality of life reasons, some farmers really prefer to just concentrate their growing during the main season, so it'd be good to ask as a follow up: if you want to extend your season, why? if not, why?)
    - If yes to question 1, what crops would you plan to grow in the winter months?
    - What markets would you plan to sell through in the winter months?
    - What are the limiting factors keeping you from growing year-round/for a longer season (e.g. infrastructure, available labor in the winter, etc.). In other words, what are the top 3-5 things you would need to grow & sell in winter?
    - What resources do you already have that you could draw upon if trying to move to year-round growing? (e.g. people might already have some season extension structures, or main season labor they want to keep employed year-round, etc.)
  - obtaining food safety certification; where are you in the process
  - learning techniques for wholesale product harvesting and preparation
  - Finding loans for expenses to meet the goals that you have set for yourself

The interviews were often combined with a farm visit that gave us a better all around understanding of farm families' strategies for success, their assets and strengths, vulnerabilities and challenges.

**Fruit Supply** The tri-county area has hundreds of acres in orchards of apples, peaches, plums and berries. We collected information on some of them through our survey in 2015, but lacked time to follow up with many of them to get more information on their wholesale interest. We looked at three that have shown interest in working with a wholesale distributor/aggregator.

**Vegetable Supply** In 2007, Frederick County Agricultural Economic Development Office calculated that we needed 2821 acres to meet the demand for the most commonly eaten vegetables in the County. At that time there were only 533 acres planted in vegetables; what an opportunity! Through our interviews with 4 vegetable farmers we learned of their enthusiastic interest to see wholesale and work with a food hub to expand their market options.

In this research alone we interviewed vegetable growers who collectively have access to one-sixth of that area needed to provide all the vegetables necessary to meet local (Frederick County) needs. Through continuation of this research and data collection for use in the Frederick Food Hub Virtual (online) Market Place, we can gradually augment the acreage in wholesale production to eventually feed our people food that is grown here. There are more than “just planting” challenges to increase this acreage and provide for the people of this county. Community FARE will work to address those challenges.

**Meat Supply** Data from a 2012 survey of cattle ranchers indicated that there was interest in finding local processing and markets to replace selling live cattle to finishers in the Midwest. Community FARE has an interest in promoting rotationally grazed grass fed beef and free range protein farming systems that bolster soil health, plant diversity and water infiltration/absorption and minimize overland water flow, soil erosion and stream health, and maximize greenhouse gas sequestration. We are looking at our program development through a lens of supporting the best land management practices, and fully intend to explore ways to incorporate carbon farming into our work.

We interviewed 4 meat farms, all with varying management practices. Two are part of the Amazing Grazers Network. Two are looking for opportunities to grow their production and expressed interest in becoming “Amazing Grazers.”

Appendix 13 presents the USDA certified meat processing facilities accessible to the ranchers in our region. Most ranchers we spoke with were satisfied with the facilities they used but thought there was ample opportunity for another processor as there was a lot of demand on the processing facility’s services.

### **Supply from Diversified Farms (that sell fruit, vegetables, meat and eggs)**

Both of these diversified farms show great promise for wholesale sales. At the time of interview neither had received food safety certification. Due to the nature of their farm, where there is both animal and vegetable, we will require GAP certification for them.

# Potential Economic, Social and Environmental Impact of the Frederick Food Hub

## Economic Impact Analysis

The Frederick Food Hub (FFH) is envisioned as a regional intervention to advance Community FARE’s mission *to help safeguard a diverse and healthy local food economy that will preserve farmland integrity and biodiversity and ensure that food grown [in and around Frederick County] is accessible to residents of Frederick County and its regional neighbors*. Creating the infrastructure to connect farmers to fair and transparent market opportunities is perhaps the best

The Frederick Food Hub has the potential of having regional economic impact of nearly \$8 Million over five years while creating close to 50 local jobs

way to improve the vibrancy, viability, and diversity of regional agriculture. It is, in fact, the disappearance of this infrastructure—both social and physical—that has contributed to the decline of rural

economies in many regions of the country while food systems have shifted from a regional orientation to a global one. In communities like Frederick and the surrounding counties, the disappearance of farm activity has been exacerbated by suburban sprawl from Washington, DC and Baltimore. The Frederick Food Hub seeks to counter these trends by offering a viable economic alternative for farmers and policy makers to justify investment in the growth of sustainable agriculture and the implementation of wise land use legislation.

At the center of this strategy is the Frederick Food Hub, which seeks to establish itself as a fair and transparent intermediary between regional demand segments and food producers in the Maryland counties of Frederick, Washington, and Carroll. In order for FFH to be an effective and sustainable intervention, it needs to operate as a viable social enterprise and demonstrate the ability to sustain itself financially after a period of startup investment. This study analyzes the potential economic impact of the Frederick Food Hub using a regional development tool provided by the Bureau of Economic Analysis (BEA) called the Regional Input-Output Modeling System (RIMS II), see the study flow chart and explanation of methodology in Appendix 14. While this economic analysis does not attempt to demonstrate a detailed financial model of proposed activity for FFH, it does build upon the study of the food hub as a business model that has emerged in more than 225 communities throughout the country. Studies commissioned by the USDA have identified the key sales levels and margins needed to reach break-even are \$1.7M in five years, based on surveys of the food hub sector and intensive aggregate financial modeling.

Based on the five-year aggregate sales data projections of FFH, totaling \$4,976,359 in final demand change after discounting to the present dollar value (2016), the Frederick Food Hub

holds the potential for the following regional economic impacts based on the application of RIMS II (model, see Appendix 14 for explanation) multipliers:

- **Final Demand Output of \$7,995,768-** This value includes the projected sales of FFH and of all the backward-linked industries, such as the farms, farm-input industries and service providers, as well as the markup on product which covers internal operating costs and the external services of FFH.
- **Final Demand Earnings of \$1,671,325-** This is the value of income paid to workers within FFH and in the backward-linking support organizations.
- **Final Demand Job creation of 48.85 Full Time Equivalent (FTE)-** These positions are both part-time and full-time jobs and includes job creation within FFH and backward-linking support organizations.
- **Final Demand Value Added of \$3,961,345-** This value is comparable to Gross Domestic Product. Value Added is the sum of total output across all industries minus the intermediate inputs (the goods and services used in production of final goods). Value Added is a non-duplicative measure that describes the net output of FFH's activity; for this reason, it is named the "Value Added."

*See Appendix 14 for more information on RIMS II and its use to estimate economic potential for the Frederick Food Hub.*

## Social Impact Observations

A healthy food system is the foundation for a healthy society, something the U.S. sorely lacks. Over two-thirds (70.7%) of US adults over 20 years of age are overweight, including obesity. Childhood obesity ranges from 17.7% (ages 6-11 years) to 20.5% (12-19years)<sup>10</sup>. Over half of Maryland's adults are obese or overweight<sup>11</sup>. All of these people are at risk for many chronic conditions including diabetes, heart disease, cancer, arthritis, stroke and hypertension, and can also suffer associated mental health impacts. Their condition most definitely impacts quality of life. The cost to Maryland in workers compensation, medical bills and lost productivity for overweight, obesity and physical inactivity exceeds \$3 billion/year<sup>10</sup>.

## Environmental Impact Observations

To fully consider the environmental impact of a food system we must consider food production, processing, distribution, sales, purchasing, preparation, consumption and waste disposal. This section briefly examines just three pieces in the food supply chain: food production, distribution, and food waste - and makes mention of what environmental stewardship could look like.

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<sup>10</sup> Center for Disease Control and Prevention (2011-2014) <http://www.cdc.gov/nchs/fastats/obesity-overweight.htm>

<sup>11</sup> City of Frederick Resolution No 15-13 Obesity Prevention – Healthy Eating Active Living



Food Production- Land conversion means environmental impact. Moving soil impacts soil biota, changes water regimes and increases soil gas exchange with the atmosphere. There are several ways to minimize the impact upon the biotic and abiotic factors and influence stewardship. Some of those are: choose land for farming that is already degraded/converted so as not to disturb a natural area; farm using organic practices that minimize soil and water toxins, disturbance and erosion; manage ranching operation to minimize soil disturbance and increase native grass diversity; support crop diversity and hedgerows to benefit pollinators; and consider water use, infiltration and runoff in production planning. Food production for local markets can be one way to engage and support our small to mid-sized farms to feel a part of a community that cares about and promotes sustainability and land stewardship in farming.

Concern over greenhouse gases (GHGs) and the role of agriculture in their emission or sequestration has penetrated the USDA's program development and there are now many ways farmers can improve their land management to sequester GHGs. Conversations about food production are amiss if they do not include carbon farming. Community FARE sees the opportunity to utilize our relationships and communication with farmers (through the Frederick Food Hub Marketplace News) to bring them information on existing programs. Additionally, as buyers/consumers become more "climate change" savvy and the Food Hub matures we should be able to utilize the informed marketplace to drive some farmers to improve their stewardship practices.

Distribution- The Leopold Center for Sustainable Agriculture reports that the average fresh food item on our dinner table travels 1,500 miles to get there. Between 1968 and 1998, world food production increased by 84 percent, population by 91 percent, while food trade increased 184 percent. On average the typical American meal contains ingredients from at least five countries outside the USA. Long hauling food means use of fossil fuels and increased atmospheric greenhouse gases. In 1965, there were 787,000 combination trucks registered in the United States that consumed 6.658 billion gallons of fuel. Thirty-two years later, in 1997, there were 1,790,000 combination trucks that used 20.294 billion gallons of fuel. There was an 11.6% increase in US greenhouse gas emissions between 1990 to 1999. Maximizing local consumption of food grown in Frederick, Carroll and Washington Counties will logically minimize the need to long haul food and burn fossil fuels along the way.

Waste Disposal- In 2014 Frederick County alone produced about 157,000 tons of trash. The EPA estimates that of all waste, food makes up 14.6%, which means we are sending almost 23,000 tons/year of food to the landfill in Virginia – costing county taxpayers over \$500,000/yr. At the landfill the food waste is buried, to slowly rot, ferment and produce hundreds of tons/year of methane. A system could be developed in conjunction with a food hub to utilize this food waste for compost - that enables county farmers to reuse some of this valuable "waste" for soil amendments. Or, small composting facilities could be set up to not only make compost but also harvest and utilize the methane produced. Frederick County currently set a goal of reducing its annual waste load by 40,000 tons, mostly by removing food waste and composting it locally.

Community FARE, as an active participant in the regional food system development, sees that it will be able to support growing the local food economy, bring local nutrition to the mouths of our local eaters and protect our natural resource base by supporting sustainable agriculture in our region.

## Site Recommendations for the Frederick Food Hub

Community FARE believes that building an online market place (Frederick Food Hub – Virtual Market Place, FFH-VMP) with photos to demonstrate what is available and to test a broader diversity of food from our local farmers will be a logical progression to facilitate the behavioral change within institutions to source their food from local farms.

### Legal Business Structure Options

The Frederick Food Hub is currently a project of the 501c3 nonprofit corporation, Land and Cultural Preservation Fund, Inc./DBA Community F.A.R.E. While the Food Hub is in its initial phase we believe that the nonprofit status is the most appropriate to ensure its fiscal success. This will depend upon our success at getting grant support for operations and development and should be reevaluated depending upon the investors and lenders that come to the table with interest in supporting this growing social enterprise.

As the Food Hub develops we will want to consider other legal structures that could work best for the Frederick Food Hub. Other structures to consider are:

- Corporation
- LLC
- Non Profit Social Enterprise
- Cooperative
- B-Corps

We fully intend to see the business become financially sustainable yet want to ensure that it maintains its value-driven mission. Even if Frederick Food Hub were to spin off to become its own value-driven business, Community FARE fully intends to continue promoting its mission by securing grants for training, education and sustainable growing/ranching, while protecting water and soil, and feeding our local population healthy food.

Community FARE's Advisory Board is interested in future analysis of both a B-Corp and a Non Profit Social Enterprise for the Frederick Food Hub. A nonprofit social enterprise is a business, operated by a nonprofit, that generates revenues while also achieving the nonprofit's social, environmental or cultural mission. A social enterprise can help a nonprofit enhance its programs and services, and become more financially sustainable. A B-Corp is a company that uses the power of business to solve social and environmental problems; it's bottom line is to make a profit while promoting social and environmental change.

We do not believe that a grower cooperative is the logical way to develop this enterprise. Our local growers have never expressed an interest in a cooperative; most that we met with expressed an interest in working with a local aggregator, distributor, marketer - so that they could expand acreage and build their own businesses.

## Conclusions and Recommendations

### Opportunities

During investigative research on supply and demand, Community FARE identified opportunities to begin to change the supply chain, and replace long-hauled food with locally grown. As of June 2016, Community FARE has begun to explore those opportunities.

### Initial Business Plan

At this point and time Community FARE believes that the Frederick Food Hub should ultimately implement a Wholesale Distribution Model for operation in Frederick, Maryland, with a warehouse for aggregation, trucks for distribution and a center for product marketing. However, we will implement this in phases by first launching a Virtual Food Hub, then incorporating the pieces of a Marketing Model to develop a local brand packaging and marketing material, while simultaneously developing a business plan for the Wholesale Distribution Model.

The first step (Phase I: 2016) towards building the Frederick Food Hub is to populate the Virtual Market Place (VMP) and map where food is coming from and going to. We will collect data on that movement until we are prepared to make a decision on location for a warehouse and other necessary infrastructure to grow and service more farmers and institutions.

**Phase I.** The FFH will begin operating as a virtual food hub using the Local Orbit online market place. Community FARE will begin to use the FFH Virtual Market Place (FFH-VMP) in June 2016 with sign-on by producers and buyers, and anticipate that the VMP will be used mostly as a marketing and educational tool. The target for this online market place will be restaurants and catering operations, an institutional opportunity that was least explored in the study. Community FARE would like to begin developing relationships with restaurants and their chefs and open the conversation about product diversity, and experimentation with new crop varieties. Frederick City and other municipalities in the region are home to some famous and successful restaurants. We intend to meet with chefs from those restaurants and test our online marketplace with them, believing that this portal will make ordering simple, and allow them to test out some product varieties unavailable to them currently. We will also revisit the most promising institutions from this study to show them the FFH-VMP and ask them to use it. This Phase I will help us gain experience on pricing, build clientele and move from planning to implementation.

**Phase II.** From the Virtual Food Hub model phase the FFH will begin to move into a marketing model to develop a local brand, delivery and marketing material, and, dependent upon financing and investment, will work at moving the operation to a wholesale distribution model. A business plan will be developed to move forward with purchase of trucks and a warehouse for aggregation and distribution of local food to wholesale customers.

There are hundreds of small and mid-sized farms in the tri-county area that Community FARE has yet to meet with and discuss selling wholesale through the online portal. We intend to first reach out to the GAP certified farms, and those most likely to become GAP certified if they have access to markets that require it. Our initial supply priority for the market place are the farmers

we have interviewed and who are interested in working with a food hub, GAP certified farmers, and Amazing Grazers.

### **Suggested Timetable:**

June 2016 – Develop Virtual Market Place by signing on growers

June/July/August 2016 – Begin to demonstrate online Market Place to chefs and interested institutional buyers (identified in the feasibility study); assess their interest, collect lists of product demand

October-December 2016 Grower meetings to plan for 2017 growing season

December 2016 – Based on grower meetings make decisions on needs for drop-off points for aggregation, refrigeration and transportation

January – February 2017 Develop branding and labeling

March-October 2017 – implement aggregation, distribution and marketing utilizing the online Market Place, leased truck and aggregation points/refrigeration (tbd)

October-December 2017 – At this point there should be greater clarity on 1) if a warehouse is necessary, 2) if so, where it should be located and other related decisions.

### **Monitoring our success, or failure**

As we clarify and pursue new opportunities, it is imperative that we know where we begin. Acknowledging Community FARE’s mission: to *diversify, expand and safeguard a local healthy food economy that will preserve farmland, its integrity and biodiversity, in Frederick and surrounding counties, and ensure food access to the regional population*, we must quantify farmland in Frederick, Carroll and Washington Counties, the acreage currently in healthy pasture or certified organic (or using organic practices), and how much food grown in this tri-county area is sold to its residents in 2016.

For Frederick County we know that:

- there were 181,512 acres of farmland in 2012, the most farmland of any county in the state.
- the market value of agricultural products was \$150 million.
- the county lost 20,500 acres of farmland between 2007 and 2012 (the greatest loss of farmland in the state).
- agriculture generates an average of \$826/acre.

We will need to both get answers to the following 5 questions for all 3 counties, and to set up a way to track change:

1. How much farmland do we have?
2. How much farmland do we lose/gain per year?
3. How much farmland is in healthy pasture or certified organic crops (or using organic practices)?
4. How much do farmers generate/acre?
5. How much annual (food dollar) leakage is there?

Tracking those metrics is key to analyzing our achievements, contributions and hindrances to developing a locally grown-based food system in our tri-county region. With these data we will know if we are moving in the right direction to meet Community FARE’s meaningful mission.

## Appendix 1: 2011 Analysis of Consumption vs Production in Frederick County

The analysis below demonstrates the challenges we have before us to meet the local demand for vegetables, berries, fruit and meat. Our greatest disparity is growing vegetables; Frederick County needs nearly 2500 acres in vegetable production to satisfy local demand. Moreover, what this does not show is of what is grown locally how much is sold to local consumers.

### Summary of Annual Frederick County, MD Consumption verses Production Needed to meet that Demand

#### Berries and Melons

Type	**pounds/gallons consumed	***production	# of acres needed
Blackberries	13,298 lbs	8,000 lbs/acre	1.66 acres
Blueberries	129,184 lbs	6,000 lbs/acre	21.53 acres
Raspberries	111,834 lbs	3,000 lbs/acre	37.28 acres
Strawberries	223,224 gallons	1,600 gallons/acre	139.52 acres
Cantaloupe	539,794 lbs	7,400 lbs/acre	72.95 acres
Watermelon	905,779 lbs	20,000 lbs/acre	45.29 acres
<b>Total</b>			<b>318.22 acres</b>

**\*2007 Census count (Frederick County)**

**Berries**

**53 acres**

#### Vegetables

Type	pounds consumed	production	# of acres needed
Broccoli	820,219 lbs	2,900 lbs/acre	282.83 acres
Cucumbers	610,636 lbs	10,000 lbs/acre	61.64 acres
Green Peas	418,220 lbs	2,000 lbs/acre	209.11 acres
Pickles	239,947 lbs	14,560 lbs/acre	16.48 acres
Snap Beans	972,409 lbs	3,000 lbs/acre	324.14 acres
Lettuce	3,995,404 lbs	15,000 lbs/acre	266.60 acres
Onions	2,059,993 lbs	20,000 lbs/acre	103 acres
Tomatoes	7,402,497 lbs	14,900 lbs/acre	496.81 acres
Radishes	70,616 lbs	27,000 lbs/acre	2.62 acres
Potatoes	9,190,155 lbs	20,000 lbs/acre	459.50 acres
Potato Chips	897,386 lbs	20,000 lbs/acre	44.87 acres
Sweet Corn	1,680,728 lbs	4,700 lbs/acre	357.60 acres
Lima Beans	40,246 lbs	2,400 lbs/acre	16.77 acres
Cauliflower	110,883 lbs	6,700 lbs/acre	16.55 acres
Carrots	1,484,519 lbs	25,000 lbs/acre	59.38 acres
Squash	438,754 lbs	11,800 lbs/acre	37.18 acres
Sweet Potatoes	477,282 lbs	15,000 lbs/acre	31.82 acres
Pumpkins	431,272 lbs	12,800 lbs/acre	33.69 acres
<b>Total</b>			<b>2,820.59 acres</b>

**2007 Census count (Frederick County)**

**All Vegetables**

**533 acres**

#### Corn Meal and flour

Type	pounds consumed	production	# of acres needed
Corn Meal	3,005,654 lbs	8,960 lbs/acre	335.45 acres
Flour (white)	21,352,269 lbs	3,066 lbs/acre	6,964.21 acres
<b>Total</b>			<b>7,299.66 acres</b>

**2007 Census count (Frederick County)**

**Corn  
Wheat**

**24,500 acres  
16,016 acres**

## Fruit

Type	pounds consumed	production	# of acres needed
Apples	6,169,815 lbs (fresh, juice)	33,600 lbs/acre	184 acres
Peaches	989,247 lbs	9,600 lbs/acre	103 acres
Pears	886,313 lbs	15,120 lbs/acre	59 acres
Plums	183,544 lbs	2,304 lbs/acre	80 acres
Total			426 acres

**2007 Census count (Frederick County)                      Orchards                      314 acres**

## Dairy

Type of Milk	Pounds consumed	production	# of cows needed
2% plain	9,424,663 lbs	21,000 lbs/cow	449 cows
1% plain	3,502,677 lbs	21,000 lbs/cow	167 cows
Whole	8,768,606 lbs	21,000 lbs/cow	418 cows
Skim	4,405,483 lbs	21,000 lbs/cow	210 cows
Total	26,101,429 lbs		1244 cows

**2007 Census count (Frederick County)    15,549 cows**

## Meat

Type	pounds consumed	production	# of animals needed
Chicken	7,692,096 lbs	4.7 lbs/bird	1,636,616 birds
Turkey	1,893,938 lbs	20 lb/bird	94,697 birds
Beef	8,915,918 lbs	780 lbs/steer	11,431 steers
Pork	5,858,591 lbs	200 lbs/hog	29,293 hogs
Lamb	104,307 lbs	65 lbs/lamb	1,605 lambs

**2007 Census count (Frederick County)                      Chicken                      2,048 birds**  
**Turkey                      N/A**  
**Beef                      20,496 cattle**  
**Pork                      12,493 hogs**  
**Lamb                      1,275 lambs**

## Sources used for study:

- \* 2007 USDA Agriculture Census at [www.agcensus.usda.gov](http://www.agcensus.usda.gov)
- \*\* Consumer Data - Leopold Center for Sustainable Agriculture at Iowa State University at [www.ctre.iastate.edu/marketsize/Default.aspx](http://www.ctre.iastate.edu/marketsize/Default.aspx)
- \*\*\* Maryland Production Yield Data – Alabama Cooperative Extension at [www.aces.edu/dept/com\\_veg/yield\\_veg\\_crop\\_se.pdf](http://www.aces.edu/dept/com_veg/yield_veg_crop_se.pdf) & Adams County, PA Agriculture Economic Development Office

## Appendix 2: Summary of data from Dec 2014- Febr 2015 farmer survey

In December 2014 Community FARE (then working under support from Fox Haven Organic Farm and Learning Center) began to survey farmers in Frederick, Carroll and Washington Counties (Maryland) and learn more about them, their practices and their interest in selling wholesale to larger markets. The survey went to 212 growers and we received 55 responses. What we learned indicated potential for growers to expand their production, but that there are obstacles to overcome:

- From our grower survey (N =55, February 2015) we learned that they farm/ranch collectively over 3000 acres in Frederick Co, Washington and Carroll Counties, and have an additional 1051 acres that is not in production. Over 72% reported that if demand for their products were greater they would expand production.
- When asked what one thing would be most valuable in making their farm operation more profitable 47% answered “marketing”.
- Our survey (N=55, February 2015) found that 30% of the farmers/ranchers need labor help but can’t afford it and 14% said they can’t find trained labor.
- Frederick County has more organic farms than any other in Maryland. Our survey identified 28 not-yet-organically certified farms using organic practices and working towards their certification.
- Profitability is one of the largest barriers to attracting new farmers. According to a 2015 survey of young farmers conducted by the Maryland Department of Agriculture, 63 percent of those surveyed said they depended on income from sources other than farming. Only a third relied entirely on agriculture to make a living. Seventy-three percent said the biggest obstacle was bringing in enough on-farm income to live on. Our survey (N=55, February 2015) found that 52% of growers/ranchers make 25% or less of their living wage from farming.

For entire presentation of data: <http://l-cpf.org/wp-content/uploads/2015/04/FH-PRESENTATION.pdf>

## Appendix 3: Retailer' Operations, Food and Vendors

### Operations

**Retail Store 1** is a family owned supermarket in Frederick, one of 83 in NY, PA, VT, NJ MA, VA and MD with total revenue \$6.25 billion. They expressed interest in buying local fruits and vegetables, they currently buy 1% local but have a target of 15% local by 2020. Their MD/VA fruit and vegetable buyer is interested in meeting farmers and will want to know how long the farmer has been in business, how many acres he/she farms, if farmer is GAP certified; may start slow for new growers so they can learn the expectations. If there is interest on behalf of both parties their rep will visit the farm and discuss growing plan. Mandatory to grow for/sell to them: use their online ordering process (training provided), have internet access, use their standard pack sizes, deliver to store. The Frederick store would work with a food hub just as they would with a grower, whereby a food hub would aggregate small farm production and use their app to supply what they need.

**Retail Store 2** is a grocery chain located in Maryland (11 stores) in Gaithersburg, Germantown, N Bethesda, Potomac, Clarksburg; Washington DC (4 stores in SE, NW and in NE; VA (22 stores) stores in Leesburg, Arlington, Fairfax and Alexandria. They will be opening 4 new stores in MD 2016-17. Their 2016 goal for total company sales is to be \$8.5 M, and they are growing annually. Last year they spent \$256K retail dollars on local products. Their store buyers develop relationships with growers during off season and discuss what products will be of interest. Vendors send in item list with price and available quantity weekly. Produce/meat buyer works with the vendor/farmer on price and item, then creates a list of items to send to the stores for their ordering. The list changes from week to week based on seasons and availability. Sometimes the store will call the farm with a minimum order, sometimes they will have certain days to deliver produce to the store. There are no contracts; the store relies on what the market is demanding. A farmer or food hub can put a list together and send it to them. They want routine for ordering. They want to make it as simple for the produce manager, and would prefer not to order through warehouse. If there is inconsistency in product they will stop using a vendor. Farmers/vendors should call between 7-9 am to let the stores know if there is a problem that will impact their order (cold, drought, too much rain).

**Retail Store 3** is a member owned and member-operated cooperative grocery in Hagerstown MD, membership costs \$35 for an entire household. Retail store and online ordering and delivery.

**Retail Store 4** is part of a 22 store chain in DC, MD and VA. We spoke to 2<sup>nd</sup> generation owner of store in Laurel, MD. Each store has its own buyer and local competitive markets and buys on their own from hubs. Much of the produce comes from Jessup and Philadelphia's ethnic market; produce is 30-40% of sales. They work with over 1000 vendors; many sell Indian products because customers are vegetarians and cook their own food. They order products daily using both computer and by hand, comparing past history and dates of sale. Each store has just one buyer who knows the local competitive markets, the client base and caters to it.



**Retail Store 5** is a cooperative that serves the Frederick area, and has 5200 members. During their fiscal year 2015, 12% of their produce procurement was local and 66% of meat was local. The dollars have grown for local purchases year to year even if the percentages haven't. Most local produce is from direct relationships, except for some like the Tuscarora Organic Grower's Cooperative. (The definition of local for this store is 150 miles.) They are trying to move away from department based buying. If there were organic options, they would get it, but for things like nut butters or meat, price tolerance is a big issue.

There is no nearby organic beef processor. They use the Mt. Airy Meat Locker. Some folks use mobile meat processing. They occasionally get farmers knocking on their door, but now that they are USDA certified only, this happens less often. This store has agreements that they set up in advance so that not everyone is growing the same thing for them, a "Friendly Contracts" system. They buy a lot from Albert's and Four Seasons.

**Retail Store 6** This chain of 14 stores in VA, MD and PA, 1 in DC will be building 4 more in 2016-17 (1 in Baltimore, 2 in Philadelphia and 1 in White Marsh). The majority of their produce is direct store delivery (DSD) 7 days/week, freshness and certified organic (CO) are the two biggest brand promises with produce and they work hard to not hold product on hand. They have a 5000 ft<sup>2</sup> distribution center in Jessup, which they use for produce aggregation in summer and in winter for produce from California. They have two trucks that service 14 stores, so really only have produce deliveries 1 or 2 x per week during warm season. If they work with a local grower who has too much, they will work with another distributor to take product and distribute it.

## Food

**Retail Store 1** grocery chain values product quality, local and organic fruits and vegetables. They have high demand for organic product. Customers ask for local and organically grown food and the company has a goal of 15% locally grown produce by 2020. They often use signage to feature farms, but it isn't always effective. There is some price flexibility with higher dollar items. There is demand for organic. As of September 2013 all growers had to be GAPS certified, or working towards it with 1 year to become certified. In the future they are hoping that growers will be harmonized GAP certified. Audits are done through USDA 3<sup>rd</sup> party inspection. Produce of interest (\*highly desired), with some quantities:

<p><b>Herbs</b>          Italian          Parsley          Curly          Parsley          Basil          Cilantro          Dill</p> <p><b>Leafy Greens</b>          Romaine          Green Leaf          Red Leaf          Red Boston</p>	<p>Green Boston          Escarole          Iceberg</p> <p><b>Cooking Greens</b>          Green Kale          *Mustard Greens          Lacinato Kale          Green Swiss Chard          Red Swiss Chard          Rainbow Chard          Collards          Dandelion Green          *Watercress</p>	<p><b>Vegetables</b>          (Summer squash 64800 lbs. in and out of season)          Goldbar Squash          Green Squash          Purple Eggplant          Asian Eggplant          Green Peppers Mini          Sweet Peppers          6pk. Green Pepper          3pk. Green Pepper          3pk. Yellow Pepper          Jalapenos Pepper</p>
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Bulk Corn	*Mini Cucumbers	Arugula
*Husked Corn		Baby Romaine
Leeks	<b>Tomatoes</b>	
*Scallions	Red Grape	<b>Winter Veg</b>
*Bunched Carrots	Yellow Grape	(5100 lbs. winter squash)
Beets	Cherry	Butternut Squash
Radishes	Baby Roma	Acorn Squash
Turnips	Beefsteak (20,250 lbs. 27000	Spaghetti Squash
*Nappa Cabbage	tomatoes in and out of	Delicata Squash
*Baby Bok Cho	season at approx. .75	Yams
Celery	lb./tomato)	Pie
Yellow Onions	Plum Tomato	Pumpkins
*Red Cabbage	Heirloom Beefsteak	
Green Cabbage		<b>Fruit</b>
*Cauliflower	<b>Greens</b>	Watermelon
Bunch Broccoli (60300 lbs.)	Baby Leaf	Strawberries
Fennel (231 lbs.)	Baby Kale	
Cucumber	Baby Spinach	

**Retail Store 2** prioritizes buying local. Their customers support local and organic and both have increased in the past two years. Anything grown in the state is considered local, and anything outside the state is regional. They want more local produce and would like to know what is available; when pressed for specific products they said sweet potatoes, asparagus and watermelon. They have flexibility with price point. The stores prepare signage with picture of the farm by the product and tells the story – and that helps it sell better. Last year the stores in MD used a large map of the state and labeled all of the farms they buy from. GAP certification is not mandatory now but will be in the near future. The USDA representative for GAP certification program comes to the store twice/year to help farmers with GAP.

**Retail Store 3** This retail and online ordering business works with about 25 regional (local, PA, VA) suppliers, and is growing rapidly. Fresh vegetables, dairy, meat, eggs, fruit, processed food, beauty products and beverages are all sold.

**Retail Store 4** prioritizes price point, not necessarily buying local. This grocery buys grade B products which are 15-20% less in cost than Grade A. The only local products they feature are melons – due to price point. Local salad mixes sometimes work also because they are cheaper. High percentage of immigrant families as customers with many mouths to feed. Price flexibility is a management call. apples, cherry tomatoes and red beans all have large bins. Lorroco is a vine type of weed/root and grows on mountain ridges; it's a seasoning spice (\$12.99/lb. fresh). Fresh bok choy, winter months it's hard to grow and get around here. Red beans are being shipped from el Salvador, buy for .80/lb. Interested in fresh goat and lamb. Bitter melon, Indian eggplant, tamarind, turmeric, basil, tomatoes, onions, potatoes, carrots, beans (lentils, peas) are of interest, and suggested that we look at high margin products like spices. There is high demand for lamb and goat meat, and suggested 1000 lbs. of goat meat/month would be marketable; whole cleaned animals. Also would like mutton (low grade lamb), unsure quantity. They have little storage capacity at the store so rotating product is very important. The current

demographics for this Laurel store is Asian, Hispanic, African immigrants many whom are buying to feed their families and buy the most inexpensive raw ingredients to cook meals. [Look to the FDA website](#) for pricing products. They knew nothing about GAP.

**Retail Store 5** cooperative grocery store and deli prioritizes quality, and social values (organic, local, fair trade) are fundamental to their core mission. They value organic before local (defined as 150-mile radius), but would like more local organic. Customers are at both ends of the local-sustainable spectrum. Local is becoming more popular, but people really first cared about sustainability. More school groups have been asking about local foods, and not just sustainable. Customers prefer when they can buy both local and organic. Local food/sustainability awareness is growing and membership is growing too – it is now at 5,200. Twelve percent of FY2015 produce procurement was local. Sixty-six percent of meat was local. The dollars have grown for local purchases year to year even if the percentages haven't. Most local produce is from direct relationships, except for some like the Tuscarora Organic Grower's Cooperative. GAP certification is not a requirement. The grocery store has a café that serves sandwiches, soups, salads. The deli manager orders the following (organic) products /quantities weekly, and would prefer to buy them locally:

**Produce**

Cabbage – 50#  
Cucumbers – 100#  
Zucchini/Yellow Squash (in season) – 100#  
Yellow Onion – 175#  
Red Onion – 75#  
Potatoes (Russet, Yukon, Kennebec, Red, Purple, Etc.) – 300#  
Winter Squash Varieties (in season) – 150#  
Tomatoes – 250 – 350# (in season higher numbers)  
Apples – 280#

Broccoli – 80-100#  
Cauliflower – 80-100#

**Meats**

Ground Beef – 60#  
Beef Chuck Roast – 60#  
Chicken Roasters – 120-150 each  
Chicken Thighs, breast, wings, ¼'s – 400-600#  
Ground Turkey – 80#  
Pork Shoulder – 60#

**Retail Store 6** buys USDA Certified Organic (CO), highest quality produce and prioritize premium product over price. Customers will take the nicest looking over local. Will not seek out produce in Frederick Co if it “looks” worse than those coming from elsewhere. There are a select group looking for the CO label, but more customers are looking for transparency and want to know the farm. People recognize labels, customers trust this store to pick the farms. This retailer does better with single farm program so that they can talk about the farms, and sees their purchases as a way to protect the environment, focus on organic and then do the best they can to source locally. \$1-2/case price point margin on produce...has to stay within market range at any given time. Finding the balance between altruism and good business decisions is what they face daily. Relationships are key.

**Vendors**

**Retail Store 1** has struggled to find GAP certified growers in Maryland and Virginia. The store works with one grower in Washington County, some in VA but mostly relies on their distribution hub in Pottsville PA. Current vendors are unable to meet the demand for local food, and they

currently only buy about 1% of their produce from local sources. The barrier at this point is finding GAP certified growers.

**Retail Store 2** food procurement managers say that the most successful farms are the ones that are asking questions like “what do you need that we can grow? What can we do to sell for you?” Their warehouse is the main supplier and procurement managers use warehouse prices as wholesale pricing benchmarks to decide order selection. Local growers can be competitive with the warehouse. They have to be close in price point to the warehouse to make the cut, since ordering directly from the warehouse is more convenient. The farmers could use training in packaging (and “Wholesale Success”).

Retail prices are set by corporate. They can provide a list of markup. They will take a smaller markup for a local product because it will be higher quality and will sell faster under a “local” label. Sometimes the farmers will match the prices for one week to make it worth their time to keep the business. A “spot buy” like a manager’s special will pass on savings to the customer, help get product sold – and will help the grocer develop a relationship with grower. Certified organic local creates another niche, but availability is limited.

The stores work with a produce source in Ashland, VA and that source does a good job of sourcing from local farms, distributing produce and acting like a food hub (their stores rarely pick up produce at a farm). Sometimes it is better to go direct with really perishable items like strawberries, if the farmers have refrigerated trucks. Some of the challenges are figuring out how to transport produce and make sure vendors have adequate insurance coverage. Other sources for products are: Lime House in Carolina, Grow Food Carolina, East Carolina Organics, Hummingbird Farms (tomatoes), Houser’s Produce, Miller Farms in MD, Godfrey Farms, Evans Farm (corn), Colora Farms (peaches and apples), Crown Orchard (yellow and white peaches, nectarines, donut peaches, apples).

**Retail Store 3** The coop is working with many farms in the region, is growing and could be a terrific partner to stimulate more small and mid-size farm production.

**Retail Store 4** buys from over 300 produce vendors (including Philadelphia Asian Market) and 5 meat vendors. Their manager takes a look at the FDA website to determine prices; cannot answer information on product, quantity or pricing as its proprietary. To get a sense for amount, you can look to the size of space dedicated to that product: Their buyer articulated some barriers to working with him: competitive prices, creating a business standard on how the farms are going to operate to sell with the hub suggesting that the hub should charge fees if farmers don’t meet standards have to be fees if they don’t meet these standards. Treat farmers like a real business. You really have to have business savvy to have a successful farm. (professionalism). They buy their meat from Super Value/Shoppers, CNC meat, Holly Poultry, based out of Mechanicsville, and buy milk and yogurt from Cloverland, owner of Royal Farms.

**Retail Store 5** This local cooperative spends about \$270,000/year on produce. They buy from local organic producers where possible, and buy a lot from [Albert’s Organics](#), [Four Seasons Produce, Inc.](#), and they buy about \$24,000/year in produce from Tuscarora Organic Growers. There is no nearby organic beef processor. For meat they use Wagner’s Mt. Airy Meat Locker. The store creates “friendly agreements” with growers in advance so that not everyone is growing

the same product. The cooperative would be very interested in working with a food hub if the branding worked to help their marketing. The store is working with a processor to do more store branding of milk and another item.

**Retail Store 6** is a good test place for new products. A food hub might and might not be of service. Farm Fresh and Tuscarora Organic Growers (TOG) fill a lot of gaps as do Four Seasons and Albert's, most "local" produce comes from Pennsylvania. From produce side don't see much of a gap nor needs. Have café at a few stores, no processing. The majority of order placing is PO through internal system. Price list with item numbers from supplier – generates a PO that is emailed to supplier, and phone call. Does planning with farmers at beginning of season. Work with TOG and Farm Fresh. Meat procurement: great grass fed natural beef program in Garson County VA (cooperative of farmers), pork pull meat into warehouse and send it out 2x/week, buy all vacuum sealed. Work with Fells Point for pastured pork (Mt Airy) and bison from Culpepper VA. All of chicken of certified organic (Locust Point), Shenandoah Valley Harrisonburg. Some certified organic beef and pork.

## Appendix 4: Retail Food Service Operations, Food and Vendors

### Operations

**Restaurant 1** is a downtown Frederick restaurant that gets produce every day through a regular distributor. Earthen Eats comes twice a week, with a combination of their standing order and add-ons. The restaurant works with a few nearby farmers. In the summer, his ordering process has to become more organized because so much is available. Looking around at other downtown restaurants, there are some upscale places that can purchase and use significant amounts of local food, but there are a number of downtown restaurants procuring local produce that have set menus and buy “add ons” for specials, but that’s about it.

**Restaurant 2** is a traditional destination restaurant outside of downtown Frederick, orders two times a week (on Monday and Friday) by phone, according to inventory count and reservations. They serve about 350-450 meals/week and more for holidays such as Valentine’s Day and Mother’s Day, about 1300-1600 per month. Customer demographics is local age 35-65, upper middle class, and a lot of out of town visitors.

**Restaurant 3** Opened in October 2007, this restaurant in downtown Frederick serves classic meals with organic and local produce. The restaurant calls in their orders to distributors 3-5 times/week. They print out their order sheet then phone in or meet with representative. They might prefer online form. They prefer delivery at times when restaurant is not too busy and when staff has time to put away goods. The chef is interested in a variety of products to serve breakfast, lunch, dinner and late night light fare everyday of the week except no dinner on Tuesdays. They cook from scratch, their only kitchen constraint is storage. They have a very diverse customer base.

### Food

**Restaurant 1** buys lettuce, carrots, herbs, and some other local vegetables year round. There is no formal chef network in town to broach with the idea of sourcing local, but owner thinks that as the profile of the town and its restaurant scene grows, the growth is dependent on an expectation of better foods. On the weekends, they get folks from Baltimore and DC, and the community is ready for more access and better marketing of local foods. Owner doesn’t really track procurement, but knows his sales. He does not participate in Farm to Fork as it requires that restaurants serve a few dishes with all local ingredients and it was very costly. Price is a big consideration, which hinders their purchases of organic foods.

**Restaurant 2** makes purchasing decisions based upon product availability, price and quality. The smaller farm sometimes charges nearly 3x the price of the bigger distributor. A local farmer was offering Brussel sprouts for \$4.50/lb. and the grocery stores charged \$2.25 at the time. There seems to be an idea that just because it’s local, you can charge more. It’s the economy of scale. This restaurant values the local produce and grows their own tomatoes, cucumbers and plans their menu to incorporate those home grown vegetables. The customer responds to the better flavor but the growing season is short. The waiters know the source of the produce, and

relay that to the customers, so it's very important to the restaurant. That's a driver for him, and makes it fun to tell a story about the locally grown food, it's a marketing plus. Buying local is a stated option. Can't say it's a priority, but when they can, they do.

Two sides of beef equals two tenderloins, two prime rib, he needs 12 tenderloins, 7 rib eye and 7-10 strip loins per week; Hoffman's delivers the meat to him. (The excess goes to Wegmans and Food Lion as mostly sausage. The restaurant prefers beef that is cured for 5-28 days. IBP doesn't allow their beef to age to get pure flavors to form (the meat should be more maroon, not red). The issue with beef is that the meat is not allowed to wet age long enough to get good flavor and factors of quality (notably ability to cook, cut and taste). Easy to trim, purple, meat is not widely available. There is a meat buyer's guide that standardizes the "language" of meat for talking to vendors...he doesn't like ruby red meat...it's too jelly like, and difficult to cut, cook and taste good. Rushing the aging process is due to cost issues. It slows production. A slab of meat that costs \$11 per pound, ends up costing more because he has to trim about 3# of meat away for filets and toss it. Now the meat cost has come up to \$22.50 per lb. because of the waste. This is why the cost of the meat is so high in a restaurant.

The restaurant never uses whole chickens even for buffets. Even for turkeys...they are ready to carve. From same sources. Size turkey is about 10-15 lbs.

They grow a lot of their own products, use them in house, the customer is happy with that. They make soups and sauces from scratch, but soup stock is started from purchased stock. Gravy in small batches, for small tables. Salad dressings are not made in house. Their business doesn't support making their own stock each week...they don't have the bones to make the stock.

There is no cost flexibility to buy higher quality items. This restaurant doesn't buy chain food items. Their menu price reflects the real cost to produce the item and the customer wont pay more. This restaurant uses the following formula to price his menu : (cost of item) x 3 plus \$1. A lot of their costs vary, (for example beef before mother's day is more expensive than any other time of the year... it's price fixing.) This restaurant tries to buy the best beef they can within their price limit (reflects curing time). They don't require produce from a GAP certified farm. No organic sourcing, no perceived demand for organic.

Here are some sample orders from 2015:

Hoffman's Market, Hagerstown MD (11/2015)

12 oz. bone in pork chop, 10 pc /7.4 lbs.@ \$2.97ea (\$21.98)

Peeled Tenders, 6pc / 50.45 lbs. @ 11.40 ea. (\$575.13)

Boneless Rib eyes, 4 pc/ 65.60 lbs. @ \$9.40 ea. (\$616.64)

Hoffman's Market, Hagerstown MD (07/2015)

20 oz. T- bone steak, 20 pc /23.65 lbs.@ \$7.97ea (\$188.49)

Peeled Tenders, 7pc / 49.70lbs @ 11.59 ea. (\$576.02)

Food Pro (11/2015)

Beef Meatballs \$30.75/unit x 2 (\$61.50)

Chicken Breast boneless skinless IQF 5 48 pack 5 oz. ea. \$46.75-unit price x 1 (\$46.75)

Broccoli Crowns 20# \$27.00 x 1 (\$27.00)  
Apple-grape Jelly #10 lb. \$10.15 x 1 (\$10.15)  
Chili Sauce 10# \$7.38 x 1 (\$7.38)  
Sharp Cheddar Cheese 5 lbs. @ \$31.99 (\$31.99)  
Cream Cheese 3# block 3 @ \$7.39 ea. (\$22.17)  
Medium Yellow Squash 18# box \$13.00  
Medium Green Zucchini Squash 18# box \$13.00  
Chicken Breast strip fritter 10 lb. @ \$31.69 (\$31.69)  
French Bread unsliced 12 pack, 22" ea. @ \$27.29 (\$81.87)  
Lettuce Romaine from CA 24 head @ \$33.00 (\$33.00)  
Carrots jumbo loose 25lb 1 bag @ \$21.39 (\$21.39)  
Home-style Ranch Dressing 1 gallon/4 pack Ken's \$38.55 (\$38.55)  
Domestic Feta Cheese 8# \$22.58 x 1 (\$22.58)  
Blue cheese crumbles 5# \$65.49 x 1 (\$65.49)  
Eggs, large grade A 15 dozen \$30.17  
Asparagus large 11# (\$32.00)  
Mesclun Mix Lettuce 3# bag x 2 \$9/ea. (\$18.00)  
Broccoli Crowns 20# \$27.00  
Lettuce Cello 24 head (\$48.25)  
Carrots jumbo loose 25# (\$21.39)

#### Performance Foods (11/2015)

Top Butt Steak 6 oz. 2 packs of 28 \$11.95 ea. (\$264.33)  
Angus Loin Strip Steak 11# 6 pack @\$7.98 (\$592.12)  
Calumet Pork Chop 12 oz. 14 pack \$88.89/pack

**Restaurant 3** purchases products based on price, product quality and social values (in that order). They value local and organic above conventional. Customers definitely care and ask for local and sustainable food and the restaurant currently buys local honey, beef, micro-salad greens, bread, goat cheese, mushrooms and tofu. Farm identity is very important, and there is a page in the menu dedicated to it. Buying local is a stated priority of the restaurant, and there is most likely cost flexibility to buy local. They work to stay away from lowest product grades. Never heard of GAP certification.

## Vendors

**Restaurant 1** gets a lot of their produce from Earthen Eats—a Mennonite collective, run by a small family. They source from several farmers and are based out of Waynesburg, PA. They buy from Food Pro for his dry goods, like tuna and tomatoes and olive oil. Plus, cleaning supplies and other nonfood items. They go to farmers markets and talks to farmers to set up deals for a season, 6 weeks, etc. Some farmers come to the restaurant to market their products. The restaurant buys mostly commercial foods, since the menu doesn't change. Then in the summer they are flushed with produce and try to be creative with it. Cheese comes from Cabot in VT, and from another distributor. Country Pleasures Farm sells blueberries. They are not buying any local



protein or dairy, although they used to buy local eggs. They serve wild caught seafood. Tofu comes from Twin Oaks, a commune-business. Coastal Sunbelt buys locally, and might be interested in buying more locally.

**Restaurant 2** uses 3 – 4 suppliers: Frederick Produce, PFG, Hoffman’s and JJ MacDonald’s. Meat comes from Iowa Beef Processors (IBP, which merged with Tysons), which has the best quality meat for the price. They order 5lb and up Pismo Tender choices (6.5 lbs., best size, best quality a bit more expensive). IBP does the butchering; the volume for these beef suppliers is massive. (National and Swift are two other options.) The restaurant tried buying from Rustelly Meat House near Elizabethtown NJ (RMH sells 100-200-mile radius of supply) but their quality is on/off and fluctuated wildly so were not deemed a good supplier due to lack of consistency.

PFG Foods (a Sysco-sized operation, but regional) and Frederick Produce are full line distributor with meat, paper goods, produce – one stop shopping. Seafood distributor is JJ Macdonald (seafood is VA MD DE sourced) and regionally cut meat is from Hoffman Meats for tenderloins, pork chops, T-bones, pork sausages and prices are competitive with IBP. Mt. Airy meat locker is not practical. The restaurant uses airline breast type of butchery for chicken choices and orders 8-10 oz. frozen chicken breasts from FoodPro, or from Holly Farms.

The restaurant doesn’t buy a lot of fruit. Purchase Catoctin Mountain pies and cakes from the United Church of Christ. RHI thinks that most of their produce comes from the Mid-Atlantic region, but beef comes from mid-west...10% or less is regional. Bread and cheese and last minute items are purchased at Sam’s Club.

The restaurant would be willing to buy from a local aggregator to see if it could be beneficial – but at this point he doesn’t see how it would be beneficial for him. They have tried to buy from local farmers but has had trouble with quality and availability – and price. They cannot afford to buy a 3lb bag of lettuce for \$18 and sell it for \$5. Farmers also don’t know how to sort, store and transport produce so that it arrives unmarred, and staff aren’t all that knowledgeable on how to prepare imperfect produce to hide the imperfections. If the owner knows that they will have 2 weeks of a consistent product, he will make sure that staff can learn to use it and won’t need to be retrained.

The only way to get local beef is to buy the whole quarter. He only needs certain cuts like rib eyes, tenderloins and strip loins. The volume he goes through is high for those meats, compared to what is offered for a side of beef. Only two loins per cow, so the pricing for that becomes too high for him. There becomes an awful lot of ground beef leftover from a side of beef if he only needs the prime cuts.

**Restaurant 3** buys enormous amounts of conventional eggs. They buy from Food Pro, Coastal Sunbelt, Ottenburg, International Gourmet and others. The restaurant is under the impression that Food Pro delivers some local food to them. They have relationships with individual farmers, and buy a lot of local from individual farms, but it varies seasonally. They get salad from California during the off season.

## **Appendix 5: Non Retail Food Service Operations, Food and Vendors**

### **Operations**

**Non Retail Food Service 1** is the county's school system. It is self-operated food service serves 68 schools and serves meals to over 20,000 students. They serve breakfast and lunch in all schools. Food and Nutrition Services (FNS) staff and managers take pride in what they do, and are supportive of new initiatives. Twenty-six percent (26%) of students receive free or reduced price lunch. A la carte purchases from students make up 36% of FNS's total revenue. All 68 schools have kitchens. The percentage of students who eat school meals ranges from 11% in one elementary school to 88% in another part of the county. Some of the high school kitchens are used as commissary kitchens, and receive direct deliveries of food. In some schools, they are serving so many meals that they have decided to do direct deliveries to them, so that orders are more accurate and less costly. Some kitchens are more modern than others. Every kitchen has convection ovens, steamers or combi-steamers. The majority of product is heat and serve. Nothing is made from scratch. FNS staff are less resistant to change now that management has changed. The staff doesn't have the training to do more advanced preparation, and they don't have the equipment, for example, many kitchens have not received new knives in 15 years.

FNS is totally self-supporting, financially. But there is a lot of room for growth, as there are many, many students who bring their own lunch to school. If the FNS can sell more lunches they will have more money to buy food (i.e. local food).

Until recently all food was ordered and delivered to a central location on Thomas Johnson Drive in Frederick. That was changed so that now most all food is delivered to the school "complex" (a number of schools that are linked by a feeder middle and or high school). There are 12 complexes in the FCPS. FNS has some flexibility to purchase locally instead of through DoD fresh, and could use that DoD Fresh money on other things, like oranges. FNS uses USDA commodity dollars to purchase apples. Any procurement contracts under \$12,500 need an internal review. Any purchases between \$12,500 -\$25,000 need to have three quotes for evaluation. Any solicitation for food over \$25,000 must go through a formal RFP process. Some of the high school kitchens are used as commissary kitchens, and receive direct deliveries of food.

**Non Retail Food Service 2** has no limitations on where the manager can purchase except for cost barriers. The food service manager started the food service department many years ago when they had a very small student population. She believes that the culture is very different on a community college campus where people come and leave, they aren't as invested in campus life (and thus food on campus). FCC places orders with other vendors via telephone, and orders are delivered to the Student Center. The food service has always run a deficit, since they have no residential students, however with more and more students on campus that is changing. They sell between \$3700-\$4000/day in food Monday-Thursday, \$1000 on Friday, the coffee shop sells \$1000 /day Monday - Friday. The Cougar Grill serves about 800-900 people/day

(could be full meal or snack) and about 200-350 per day in the coffee shop. The food service also orders some food for the Headstart Program housed on campus.

**Non Retail Food Service 3** is a state school that contracts with various vendors for everything from paper goods to food. It places orders 1- 2x/weekly from local produce vendors John Avery Clark and Dairy Maid (under state contract). The previous managers would have the sales rep come in, but she finds it is easier to order and make changes online at last minute. All food is delivered to the school's kitchen. Food Service has 8 full time employees and 4 part time. The school is open ten months of the year, meaning they serve 15 meals per week serving about 75 for breakfast, 350 for lunch and 80 for dinner. They serve 30-50 elementary school snacks/day as part of the reimbursed federal government school lunch program. The elementary and middle school are served components in a meal that meet the fed guidelines.

The state school does not have kitchen/cooking food preparation constraints. They prepare soups from scratch, marinara made from can. French fries are brought in ready made and fried on site. They have equipment to process these food items, choppers, mincer etc., however most food arrives ready made. The kitchen is well stocked with two flat top stoves, two convection ovens, tilt skillets, steamers. Vegetables are prepared on site.

Restrictions follow nutritional guidelines and depends upon the grade of the student. In order for the school to be compensated for the school lunch programs data is collected on: minimum and maximum fat counts, sodium, trans fats, vegetable portions, fruits, broken further down to dark leafy grains...etc. High school students must have 3 out of 5 certain components in the meal for it to be reimbursable. There is someone standing at the high school lunch line counter counting the lunches that have these components; these numbers are reported to the federal government. The school serves meatless Monday (grilled cheese or fiesta bean taco); some students eat it, but not all. It's a challenge to get some students to like vegetarian meals. No desserts are served except for dinner. If the school makes cookies or other desserts available for other meals, then students exceed their calorie and the meal is disqualified for reimbursement. *This program was started back in WWII when government realized that the troops coming in weren't eating right and figured that the families of the troops weren't either (DoD money)* Nutritional values are the main restrictions. (The food service manager has a culinary school background but is not a dietician, but there is one on contract. The manager formerly worked for Sodexo.) Menus are accessible on line at the school website under families and student's/cafeteria menu.

Students range in age from 5-21 years old, and boarding school serves ages 6-12. Kids are bussed in for the week, but vacate campus every Friday afternoon for the weekend. All of the students have an IEP, with the deaf disability, some are mentally disabled. The older students live at the Shockley house in town (they defer their graduation until they are 21 yrs. old). The school was established in 1888.

**Non Retail Food Service 4** is a private university under contract with Aramark, and orders five days per week from Sysco, PA (provides paper products) and Keeney produce (and raves about Keeney produce). Keeney provides the university with sell sheets (listing what they have in stock). Sysco is web based and Keeney is phone in. The university cafeteria serves 3500/day, 21,000 people per week. has 2 chefs on staff: one orders and one supervises and staffs. Almost

all cooking and meals are from scratch. Most customers are 18-22 yrs. old, white with 15% minority. Ethnic meals are incorporated in occasionally, but there isn't much demand for that. There are summer camps, continuing education camps, soccer camps, etc. during the summer season, and the numbers vary wildly. It all depends on who and how many people are on site. It's not as large as in season, can be 3000-7000 people per week. All employees are Aramark. There is no onsite culinary or agriculture program for growing or cooking.

**Non Retail Food Service 5** is a neighboring county community college does all their ordering manually but is transitioning to POS Vivonet system that will have an inventor system, cloud database, connected to a one card system with campus id's that started in February 2016. Orders are placed once per week. The college is switching to One Card POS system for ordering. It will have a hand held scanner with usage and tell them what to order to keep up, but the ordering control will remain with the food service manager. Delivery has to be on time, and food needs to be high quality especially with only a handful of staff there to handle and check deliveries.

The food service department oversees 5 different areas on campus (Hilltop, Valley Eatery, catering, coffee shop and Black Tie vending service). Ordering is internal, with specific items to vendor. Big Train (drink mix manufacturer) is a vendor for the café. Valley Eatery and Hilltop are new. Valley Eatery makes 50% of the income, Hilltop is 28% and catering brings in 22% of their bottom line. They are fully updated with their own kitchens and facilities. Students make up most of staff. Salad bar items are all prepped on site; student employees are taught to prep the foods. There is a lead prep/chef but there are only 5 regular staff members and one is part time; i.e. bare bone staff. A lot of the student employees don't even know how to make a sandwich.

Most customers are students ages 18-21, some non traditional (older) students make up about 40%, ethnic is 5% and growing. Through continuing education program there are other possibilities for food sales: There is a College for Kids Program during the summer, for kids 2<sup>nd</sup> grade to 6<sup>th</sup> graders.

**Non Retail Food Service 6** is an assisted living care facility that was a government owned and operated assisted living facility until May of 2014, when it was sold to a private company, Aurora. At that time food service changed from Morrison Senior Living to Feesers out of Harrisburg PA. Their assisted living manager places orders for frozen meats, frozen vegetables, chemicals and other dried goods and butter. Jesse Lewis to put us in touch with Feesers sales representative. The facility orders 2 times/week via internet, the assistant director does the ordering. They receive onsite delivery 2x/week from Kirkwood and Hearn produce vendors. They prepare all food in a satellite kitchen (in house), which is then sent to their decentralized kitchens. Nursing staff acts as wait staff and deliver meal trays for those not able to make it to the cafeteria. Menus are developed through Odyssey Assisted Living and facility cooks prepare the food. They serve approximately 230 meals/day or 19,230 meals/month. Everything is made from scratch and cooks have to follow food guidelines for cooking temperatures and ingredients. Their internal Food Committee gets feedback from residents and makes menu decisions based on the feedback. The staff makes accommodations for ethnicity and specialty meals. The demographics are mostly white, some ethnic including Jewish.

**Non Retail Food Service Institution 7** is a regional Catholic School (serving pre-k-high school) orders with set vendors and orders online by fax or phone call from US Foods, Hershey's Ice Cream, Dairy Maid, and goes to Sam's Club for last minute items. They order weekly, vendors have set delivery days and some have minimums that they have to reach. All orders are delivered. Food is mostly oven ready – has no deep friers. Because of their HACCP Plan she tries to stay away from raw meat. The school has a full kitchen which they use to principally heat and serve, 3 full time and 2 shared part timers. They serve about 450-550/week (just lunch), about 2000/month. Food service plans monthly but heats daily only what is ordered by teachers and students every morning; makes about 5-6 extra/day. The student body is predominately Caucasian K-8, middle to upper class, no government funding for FRL, kids don't experiment with food – they are fast food eaters.

**Non Retail Food Service Institution 8** is actually a cafeteria within a local hospital under contract with Morrison Healthcare (Morrison's), a Compass Group company, to run its food service. The hospital has three food service operations: one for patients, one for retail (the cafeteria), and a catering line. Their menu never changes for patients. Morrison's corporate office sets the patient menus and the Morrison staff at the hospital are required to promote them. Patient meals have to follow strict nutritional guidelines, but the retail operation has more flexibility. The hospital food service manager recommended that we work with the retail operation. Food service staffing: food service managers and dietitians work for Morrison's, but the kitchen line staff are hospital employees. The amount of food that can be bought outside of the Food Buy purchasing system is very limited. Menu creativity is limited by staff and budget.

The hospital kitchen puts out 50/50 scratch and pre-done; scratch includes pre-processed (like pre-cut and washed). The nutritionist prefers cooking from scratch to make a better product, and the results of her changes have been well accepted. Patients eat about 640 meals a day. Retail operation: The busiest months are December, January, February, and March. Summer months are slower. Most of the retail cafeteria customers are hospital employees. The food service manager suggested that the retail area would be the most logical place to begin selling local food. The hospital just recently hired a retail food service manager.

## **Food**

**Non Retail Food Service 1** serves a breakfast in the classroom program in 10 schools, which have to have at least 40% of students receiving free or reduced priced meals. Breakfasts have all been cold, but the department of health has given them permission to do hot meals (although it is unclear whether permission was needed). They count fruit juice for their breakfast fruit serving and they consume a lot. They serve fresh fruits and tried cantaloupe when it was available, and use some canned fruit as well. FNS has partnered with Shared Strengths to test out kiosks, which have been doubling breakfast participation at a number of schools. Shared Strengths is a national company that is focused on urban school districts. The breakfast in classroom program is called MMFA, Maryland Meals for Achievement.

The public school system does not have a formal **Farm to School** (F2S) program. The procurement manager is very interested in having one, and he would be the main contact to participate in that. The state of Maryland has been supportive of local purchasing and increased

food service participation. The state has provided resources for things like trainings and workshops. Food and Nutrition Services (FNS) would be willing to work with partner organizations that support marketing and F2S.

FNS has done a lot of taste testing, since receiving feedback from the students was big on FNS's agenda. Vendors and brokers are coming in to test products. Kids are super happy with the results. Steve has spent almost 50% of his time on this initiative. They have tried making smoothies at kiosks on site, using frozen fruits. However, the costs got so high that they could only offer them for a la carte purchase rather than paying for them through the federal reimbursement program. These changes are coming both from students, and management sensing the opportunity.

They do seasonal menus based on availability. Robert has 4 specialists, 2 do research and development. Under them are 7 complex managers that each manages 10-12 schools. Each school has a Staff Assistant that is in charge. They work closely with a student health council, which includes public health people, nurses, 2 parents, students. The Food & Nutrition Services Department (FNS) has a positive relationship with the school board and the superintendent. Three or four of the School Board members are very supportive of "the local movement, local farmers." FNS uses USDA commodity dollars to purchase apples. Local apples are much more popular than Washington apples; FCPS gets their local fruit from the Catoctin Mountain Orchards. The kids prefer smaller apples, Blondee variety is very popular.

Food that they would be interested in would mainly be fresh produce, their meats are all precooked and mostly come from commodity, dairy is local from Dairy Maid, most cheeses are also commodity. All produce will be commodity during this school year, coming from DOD. These foods are:

Apples – (currently buy local from Catoctin Orchard 1200 to 1500 lbs. per month \$20.00 per cs.)  
Broccoli Florets – 200 to 400 lbs. per month \$10.58 – 3# cs  
Carrot Sticks – 250 to 500 lbs. per month \$11.45 – 5# cs  
Baby Carrots – 200 to 400 lbs. per month \$28.24 -20# cs  
Celery Sticks – 250 to 500 lbs. per month \$11.88 – 5# cs  
Whole Cucumbers – 300 to 500 lbs. per month \$8.14 – 5# cs  
Chopped Romaine Lettuce – 1200 to 1500 lbs. per month \$24.25 – 12# cs  
Shredded Lettuce – 500 to 700 lbs. per month \$21.23 – 20# cs  
Spinach – 400 to 600 lbs. per month \$9.15 – 2.5# bag  
Whole Tomatoes – 300 to 400 lbs. per month \$25.36 – 25# cs  
Seasonal Fruit: Cantaloupe, Grapes, Nectarines, Peaches, Pears, Plums & Watermelon – 300 to 500 lbs. per month

**Non Retail Food Service 2** food purchases are not driven by social values, they are mostly driven by price, but also quality. They try to buy middle of the road, except buy more expensive deli meats (but not premium). They buy liquid eggs, not whole eggs – even though the students want real and not liquid eggs. They have no expressed demand for local, and most of the growing season coincides with the time there are few students in school. The school is not equipped to pick up produce. Hothouse produce would work during the fall and winter, but

pricing is critical to that working. Frederick Produce/Food Pro is more expensive than US Foods, and there is no source ID on where the food comes from. (Sysco had extremely high prices and were not reliable to their word (“they lied to us on numerous occasions”). The school does not purchase anything local currently and there is no stated priority to buy local food, there is no “Green Group” on campus pushing them to do so. Food Service says they have no additional money to buy local.

The college spends \$250,000 – \$300,000 per year with US Foods alone. All ordering is done online, although rep may come in to take the order. They buy most products from US Foods (Premier Foods) because the company offers special pricing on food, paper and office supplies, including regular and Greek yogurt. The college is happy with this arrangement since US Foods offers rebates every quarter. Prices are under contract and can’t be revealed; (manager tried to pull the report but couldn’t get it come up). They order weekly:

- 4 cases of tomatoes – 4 cases
- 3 cases of salad mix – 3 cases
- 6 cases of spring greens – 6 cases
- 24 ct. case of cucumbers- 24 ct case
- 2 cases of carrots – 2 cases
- broccoli - 3 cases (four bags to a case )
- mushrooms – 2 cases
- onions - 15 lbs.
- green peppers - 20 lbs.
- cantaloupe - 1 case
- honeydew – 3 cases
- strawberries – 4 flats
- blueberries – 1 flat

Other food distributors are: Dairy Maid (orders 2 x/week, in Frederick, order: gallons of white milk, skim, heavy whipping cream, 500 half pints of milk for Headstart), Pepsi, Uncle Ralph’s (in Frederick, cookies and brownies), H & S Baker (breads), Saikou Sushi and Hershey’s’ (ice cream, 1x/mo.). The school would be willing to try some local fruit and set up a little market to sell it.

The college buys processed fast food like pizza, chicken strips, burgers. They have about 3000 items on the menu. Salad is one of the top movers. When we were there an employee was preparing the sushi bar, slicing fresh avocados and cucumbers. Even though demand for processed food is high, we saw healthy snacks (raw foods) and meals available for purchase. Top sellers are salad bar and hamburgers, chicken tenders and fries. There is no money in the budget to expand the salad bar. Their food service (the Cougar Grill) has about 13-14 employees, and coffee shop has 1-2 employees. Including office staff and other support there are a total of 20-25 people on staff. They do some cooking from scratch, mostly soups and hot meals. The kitchen is fully equipped by self taught chefs. The college customer is a commuter, within age range of 18-70 yrs. old (median age is 26-27 yrs. old). The numbers of Latin and African Americans has increased but the food procurement has not changed.

Could entertain the idea of setting up local foods next to the conventional foods, fruit smoothies in the spring with the yogurt, suggested to talking to Continuing Education to do some classes for cooking, and local food involvement. That's the way the college is set up to get some more involvement.

They try to look at source of food, and do wash produce thoroughly to reduce risk of foodborne illness. FCC is working with employees on Serve Safe Certification. Frederick County does not require TB testing, food certification handling, etc.

**Non Retail Food Service 3** school's food purchases are driven by quality and price, and state funding means budgets are tight. The food service manager is very interested in buying local, but the budget drives what is purchased. She learned that USDA commodities are available to them from farmers that have surplus, could be any produce. (check into how that is controlled and disbursed). The food service manager is new and has had an ASL barrier with the students – so she really doesn't know if there is an interest in local or sustainable foods. She is making all efforts to change that. There is nothing sourced locally now except for Dairy Maid products; it is likely that the older students and staff would be interested in local sourcing and is interested in looking into this more. The school does not require GAP certification. Food Service uses Coastal Sunbelt Customer Price Guide (January 2016) as benchmark for purchasing:



Apples – red delicious	113 count	\$32.85
Apples - gala	100	\$45.75
Bananas #1 ripe		\$19.95
Bananas - turning		\$19.95
Cantaloupe 9ct		25.50
Grapefruit – red 40 ct		28.75
Grapes – red seedless		52.75
Grapes – white seedless		46.50
Melon – honeydew 6 ct		21.75
Kiwi - tray	33	14.00
Lemon 140 ct		41.50
Oranges – Florida 100ct		24.00
Pears – Danjou 120 ct	100	45.25
Pears – Bartlett 90 ct		46.50
Strawberries 8/1 pound		25.50
Tangerines – clementine 5lb box		7.50
Watermelon – seedless 1 ea.		8.90
Broccoli – crown cut		35.90
Broccoli – floret 4 x 3		27.75
Cabbage – green 14-16 ct		17.75
Cabbage – red 2 ea.	2	6.25
Carrot shred 1/8 5#		10.75
Carrots loose 25 lb.		15.75
Carrot bites 30/1#	30	34.75
Carrot stick 3/8 x 3/8 x 4 5#		12.00
Celery – California 24/30 ct		55.50
Celery – split stick 4 5#		17.25
Cucumber – select	60	29.00
Mushrooms – medium 10lb	10	17.25
Mushroom – Port 4-5 Cap		16.00
Mushrooms – Cremini 5 lb.		13.50
Onions – Spanish Jumbo 50lb (yellow)		24.50
Onions – Red Jumbo 25#		20.50
Parsley – Italian 5 ct		6.00
Peppers - green		20.75
Potato – Idaho 100ct		23.00
Potato – Chef		17.75
Potato – Sweet #1		18.95
Radishes – 1 lb.		4.00
Lettuce – green leaf	24	25.25
Lettuce – Romaine 24 ct	24	30.00
Lettuce – Romaine Chopped – 6 x 2#		25.25
Lettuce – Spring Mix 4 x 3#	3	33.75
Lettuce – Spring Mix 3#		9.00
Spinach – Clipped 4/2 5#		21.50
Tomato – LG (6x6) 25lbs		40.75

**Non Retail Food Service 4** students/customers don't seem to care about local or organic, with few exceptions. It is difficult to do partial organic supplies on the salad bar. Local foods were featured each fall, but it's not that expansive so it kind of died out. What they can get local starts about 45 minutes away. The university would not object to getting local foods into the menu and onto supply line. The product would have to be delivered dependably. It would have to be worked out with Aramark, and would be a university decision regarding cost flexibility. Aramark certifies all of the food purchases – its not up to him. The University Food Service Manager quantified some of their demand:

broccoli -200-250 lbs./week  
Carrots -100 lbs. /week whole and baby  
Potatoes- 900 lbs./ red, bakers, Yukon  
Spinach 80#/week, salad mix  
Romaine lettuce 150 lbs./week  
Leaf lettuce 60-70 lbs./wk.

Milk  
Cauliflower - 50#  
Herbs - basil, chives (fresh and dry)  
Apples - 300 lb./wk.  
grapes - 300/wk.  
watermelon -50#/day

Fruit and vegetables for use on salad bar are purchased whole and prepped on site.

**Non Retail Food Service 5's** purchases are driven by price and quality. Customers don't really express interest in local and organic foods, and probably aren't willing to pay more for food; they do seem to care about biodegradable products. Educating the students/consumers about the costs is important. She is willing to advertise locally grown fruits, vegetables and chicken at the salad bar, etc. Bacon is a big product - she orders 100#/week. Raw chicken has declined in demand. Their food sales depend upon campus restaurant location. The Hilltop Grill is doing alright – but students don't want to walk down the hill because they have to walk back up. Hamburger comes frozen from Sysco; food service staff doesn't have the manpower to make fresh burgers. The College is interested in fresh fruit, fresh chicken, vegetables, beef – but aren't able to share price point information. The food service changes their special entrée station every week, so could accommodate new foods. Some soups are cooked from scratch, but most soups are bagged, just add water. Some specials are from scratch. Consistency is important, but the college expects that there could be variety in the fruit and vegetables, however the pricing has to be about the same. The Food Service Manager has the flexibility to change the menu based on the items available. Buying local is not a value. It seems the Board doesn't even value staff, as their food service person is doing 5 jobs for the cost of one. The college food service is considered an auxiliary that needs to cover its own expenses. There is very little profit in food service. The president views and treats food service as fundamental, and it is governed by the board of trustees as a service to the college.

**Non Retail Food Service 6's** food has to come from approved vendors to be able to be used in the facility. Their food purchases are not value - based, however they are willing to consider local. Customers don't ask for local, but they may not even think it's an option. There is a possibility with approved vendors through the administrator and Parent Company, Aurora that local food could become part of menu. (Discussion: Unidyne has done work with local farmers and Senior Facility somewhere in Boston, MA.) Currently do not purchase local, buying local is not a stated priority. They work on a 4-week cycle so they can let the farmers know ahead of time what products they need, or what farmers produce in surplus. State of MD regulations and authorities regulate the certification of where the food comes from and how it is handled.

**Non Retail Food Service 7** food purchases are driven by price; lunches cost \$3 so try to price a lunch at \$1.50-\$2.00/labor wages will start making things difficult. The school does not consider local in the food mix at all. Food Service buys weekly:

Mixed iceberg and romaine salad - 4-5lbs  
Cucumbers – one case (12)  
Apples -one case of 100

Oranges (hold in cooler)  
Pears (hold in cooler)  
Plums (hold in cooler  
Bananas -10 lbs.  
Red grapes – 10 lbs.  
Broccoli – frozen  
Green Beans – frozen  
Corn pieces (4”) – frozen

They used to buy fruit from Catoctin Mountain orchard but it is inconvenient. The Orchard offered a nice variety but it is very challenging to get it; the Orchard would not deliver such small quantities. Small school places don't want to bother. Buying local is not a stated administrative priority, and there is little budget flexibility for higher priced items. Food service prepares a crispy chicken on lettuce and tomato – kids pick off the lettuce and tomato; they are unfamiliar with home cooked foods (like meatloaf and sloppy joes). Kids live a fast food life. Students eat whole apples, but are generally closed minded toward food. She looks at other schools for menu ideas.

**Non Retail Food Service Institution 8** makes purchasing decisions based upon consistent quality and price. They are really looking to drive down costs for food. Neither the hospital nor Morrison's requires GAP certification, but their current distributors require GAP certification. Morrison's incorporates a corporate wellness platform, unlike Aramark or Sodexo. Things that they could potentially purchase: lettuce—mixed greens, which would have to be washed, cut, and bagged, fresh fruit cups would be great, but they need to be consistent and  $\frac{3}{4}$  inch cubes. Morrison's has "superfoods" promotions each month that they buy off their order guide, and sometimes locally. Super foods would be the best opportunity to get local foods into the cafeteria. Morrison's will release their 2016 calendar of super foods. The retail operation's meals (but not the cafeteria's) are part of patient satisfaction surveys, which are very important to FMH. FMH has had a farm stand that happens every other week, outside on the patio. Oakie Dokie Farms has helped make that happen, and has also done a CSA with a full and half share, for hospital staff. Kelly was not sure if they have a workplace wellness program, but they do have a green team. Community Benefit Office does not work with FMH food service.

The hospital administration pushed back on Meatless Mondays and Fryerless Fridays. They are not supportive of healthy initiatives. Local and healthy is not a priority for hospital administrators.

When the hospital has good food (like ABF chicken), and the items are promoted and have a good cost, the food sells really well! ABF chicken sold out on Food Day. Advertisement and promotion works really well.

## Vendors

**Non Retail Food Service 1** is currently in its 2<sup>nd</sup> year of a contract with US Foods (out of Altoona PA) as their broad line distributor. They have the ability to bid out for procurement at

any time. They currently use Lancaster Fresh as their produce vendor, and at this point, all produce is purchased through the DoD Fresh (Department of Defense) program.

The school system gets USDA commodity entitlement dollars to buy ground beef (it comes in pre-cooked) and chickens, that are then sent to Tysons for processing. Ninety-five percent (95%) of entitlements are used to cover the cost of processing. JTM and Pier Foods does a lot of meat processing. Pier makes chicken drumsticks for the school district. Chicken breasts are their best-selling item. The schools prepare cheese steaks and burgers, meat sauces, and tacos (pre flavored) with their ground beef.

Dairy is local from Dairy Maid. They work closely with the Dairy Association. Lancaster Fresh marks what is local and what is not, and in September, 80% was local, but by November virtually nothing is local. The school system used to buy fresh produce from Baugher's Market in Westminster (Carroll Co), somehow that relationship ended. Coastal Sunbelt was their produce vendor in summer 2015, it was all fresh and local. They do a minimal summer feeding program, involving 10-12 schools, serving breakfast and lunch. Summer meal programs depend on available funding; it is often a budget item that gets cut.

In 2014 the Food and Nutrition Department sent out RFPs to the following farms and sent the following product of interest list. Not a single farm responded.

**Non Retail Food Service 2** says that price is the biggest barrier to buying local since the Frederick County College Food Service has no slush fund. The first task is for the food hub to become a certified vendor and to set up a purchase order (Community FARE has the paperwork). Having a single vendor or minimal vendors is very important. It takes time and bodies to bring the food in and down an elevator and put the food away. They can put a \$3K order away in 40 minutes.

Recommendation is to contact Michael Leonard, Director for Adult Learning at the Monroe Center – by the Fair Grounds (240-629-7927) The Monroe Center is a full service kitchen and even though they rarely operate and use it, they have the ability to set up classes.

**Non Retail Food Service 3** uses 6 vendors. Food Service was unable to provide information on quantity of items purchased and their prices, however they did provide a price guide from Coastal Sunbelt (included in food section). There are too many variables with the vendor and getting usage reports is a huge task. The kitchen needs processed chicken tenders, diced chicken, pulled chicken, chicken parts (no whole meat fabrication); they get Tyson and Perdue chicken products from Food Pro or Sysco. Their vendors are:

- Food Pro
- Performance Food Services
- Sysco
- James Avery Clark small produce vendor in Frederick, prices are good (no specialty items), but  
don't send out weekly price sheet so it creates issues with invoicing
- Coastal Sunbelt – online and have specialty items
- Keeney produce - online and have specialty items

The School is always able to get what they need from one of the three main vendors: Sysco, Performance Food Service and Food Pro. There is no demand for local. Barrier to MSD buying from other vendors is that the vendor needs to be registered with the State of MD, set up in the FEMUS accounting system, payment terms are net 30+. Other than that there are no real barriers to buying locally produced foods.

**Non Retail Food Service 4** was unable to share price information. The Food Service Manager considers local to include PA, DE, VA, MD and WVA, up to 45 minutes away from them. Even though the university is surrounded by farmland there is no local produce available to them, however they do buy Dairy Maid products. Requirements for insurance are hurdles that a lot of small farmers don't have. Sysco has used Amish farmer's co-op (see Harry, Sysco's produce manager). Currently the University has no problem getting what they need and because of their contract stipulations, Aramark would have to approve any vendors (hoops and red tape) and University would need to approve pricing/purchase. The Food Service Manager believes in buying local and is willing to figure out how to make it work, but he is not the decision maker.

**Non Retail Food Service 5** buys from Sysco, Coastal Sunbelt, Dairy Maid, Dixie Beverage, H & S, Johnny's Hotel and Restaurant Services (in Chambersburg PA), S & D Coffee, Pepsi, Coke, Frito-Lay. Meat products come from Johnny's and Sysco, whichever has the cheapest price. (Sysco gets most of their produce from Coastal Sunbelt). Vendor has a minimum dollar amount for the orders. Uses Coastal Sunbelt for their produce.

**Non Retail Food Service 6** can't share price info with us but will share volume. It orders bread from H & S Bakery in Baltimore, dairy from Dairy Maid and yogurt and cheese from South Mountain Creamery. The Food Service Manager believes that Feesers, Kirkwood and Hearn are flexible and would try to accommodate their request for local foods within reason. There aren't products they want but cannot buy. There is a petty cash fund to go the local market and purchase specialty items, such as kosher. Order size can vary as needed. All vendors need to be approved through the parent company, which means talk to administration first and work from there.

**Non Retail Food Service 7** purchases weekly from US Foods, Hershey's, Dairy Maid and Sam's Club. The school is thinking of switching vendors because US FOODS buys from Tysons or Purdue and they often discontinue products. On the other hand, Sysco has taken their menu and Sysco's chef is trying to come up with new ideas, which sounds appealing. The Food Service Manager is very interested in getting the kids to eat well but the fast food culture has made it challenging. She expressed interest in food education and introducing some local food.

**Non Retail Food Service Institution 8** buys at least 80% of food from Food Buy. Their broadline distributors are US Foods and Sysco, and their produce distributor is Keany Produce.

## Appendix 6: Vegetable Supply

### Operations

**Vegetable Farm 1** in Carroll County has been in operation under current owner since 2010; the owner has been full time at it since 2012. The farm is 153 total acres: 10 acres certified organic vegetables, 30 acres certified organic pasture, 10 acres' woodland, 15 acres in CBF tree planting and the balance in conventional tillage of rye that he will sell to Miscellaneous Distillery in Mt. Airy. There is still acreage to expand and he is trying to figure out what is next.

**Vegetable Farm 2** has been in fulltime operation for 6 years, farmer grew up on a farm in PA. He has cattle for own use, 200/yr. chicken and turkey that he sells to neighbors, horses and pigs (raising organically), 120 acres leased for hay, 30 acres in vegetables and 85 acres that he is converting to vegetables as the wholesale demand arises.

**Vegetable Farm 3** open since 1981 full time, before that her family farmed the land. They have 57 acres all in Maryland Land Preservation Fund, and have fruit orchards, vegetable fields and over 36+ greenhouses for annuals, perennials, herbs, deciduous shrubs and evergreens. They have a large retail store and area for plant sales.

**Vegetable Farm 4** is in its 5<sup>th</sup> season this year. They don't farm full time, but would like to. They farm 2.5-3 acres and are preparing to add 2 acres to their production. They are certified organic and grow vegetables, berries, and herbs.

### Products

**Vegetable Farm 1** buys 5000-6000 early spring lettuce plants and (super high yields and disease resistant grafted) tomatoes from Deep Grass Organic Nursery on the Eastern Shore; The farm sells flowers throughout the growing season and sells bouquets at the farmer's market (mother in law arranges them): peonies, tulips, daffodils, lilacs, zinnias, lilyanthus, sunflowers)  
Mid May harvest: first root crops (beets radishes), kale and lettuce and cabbage  
Early June: root crops, kale, lettuce, strawberries, asparagus  
Mid June : squash, tomatoes from high tunnel, as well as May crops, summer squash  
July and August: root crops, kale, lettuce, cabbage, squash, tomatoes, snap and green beans  
Late August/early fall: butternut squash, acorn squash, summer squash, sweet potatoes, Potatoes, cucumbers  
Fall : root crops (beets radishes), kale, lettuce, cabbage, winter squash, cantaloupe and watermelon  
Winter: firewood

Ideas for economic enterprises:

- Growing greens in hot weather: shade cloth over high tunnel frame (Gardener's Gourmet, just do retail, sells lettuce for \$12/lb. )
- Organic Green House to start seeds for farmers

**Vegetable Farm 2** Twenty two (22) of the farm's 117 acres is in:

Radishes  
Turnips  
various lettuces  
spinach  
various squashes (winter, zucchini, butter, spaghetti, pumpkin)  
tomatoes  
okra  
onions  
kale  
potatoes  
carrots  
asparagus

The farm has expanded production this year to sell wholesale to Wegmans, Harris Teeter (both connections provided by Community FARE) as well as for Coastal Sunbelt. This year he intends to focus on the following for his CSA: winter squash, eggplant, celery, cauliflower, varieties of tomatoes, basil, thyme, oregano, radishes and turnips. No special products yet. Still waiting to learn what he will grow for wholesale in 2015 the hay and vegetables grossed \$ 280k.

**Vegetable Farm 3** has a CSA and hundreds of customers. The following are products that are available:

<b>Fruits</b>	Beans, butter	Eggplant – 9 varieties
Apples – 19 varieties	Beans, green	Fennel
Apricots	Beans, Italian (roma)	Greens, collard
Blackberries	Beans, lima	Greens, mustard
Blueberries	Beans, pole	Greens, turnips
Cantaloupes	Beans, wax	Kale
Cherries, sour	Beans, jumbo	Kohlrabi
Cherries, sweet	Beans, purple royal	Leeks
Currants	Beans, October (cranberry)	Lettuce – 10 varieties
Gooseberries	Beans, other varieties	Mizuna
Grapes	Beets	Okra
Nectarines	Bok choy	Onions, spring
Peaches	Broccoli	Peas, sugar snap
Pears – 6 varieties	Brussel sprouts	Peas, green
Plums – 6 varieties	Cabbage, red	Peas, snow
Raspberries, black	Cabbage, green	Peppers, hot – 15 varieties
Raspberries, red	Cabbage, savoy	Peppers, sweet – 20 varieties
Strawberries	Carrots	Pumpkins
watermelons	Cauliflower, white	Rutabaga
	Cauliflower, cheddar	Spinach
<b>Vegetables</b>	Cauliflower, purple	Squash, winter – 12 varieties
Arugula	Celery	Squash, summer – 10
Asparagus	Cucumbers, pickling	varieties
Basil	Cucumbers, regular	Swiss chard

Tatsoi  
Tomatoes, cherry – 14  
varieties

Tomatoes, regular – 10  
varieties

Tomatoes, heirloom – 15  
varieties  
turnips

**Vegetable Farm 4** grows a suite of organic herbs, fruits and vegetables and are expanding production in 2016.

**Herbs**

Basil  
Cilantro  
Mint  
Oregano  
Parsley  
Sage  
Rosemary  
thyme

Brussel sprouts  
chard  
cabbage  
cucumbers  
edamame  
garlic  
garlic scapes  
green beans  
greens and lettuce  
kale

Baltimore heirloom, padron,  
Indian Jwala, cayenne, Thai  
chili, fatali, Jamaican  
chocolate habanero,  
Carribbean red habanero, hot  
cherry pepper, and serrano)  
radishes  
spinach  
cherry tomatoes (12  
varieties)\*

**Fruits**

Blueberries  
Raspberries  
strawberries

kohlrabi  
onions  
peas  
sweet peppers (bell, Italian,  
Romanian)

slicing tomatoes (red,  
yellow, dark)  
Roma paste tomatoes  
pie pumpkins  
jack-o-lantern pumpkins  
winter squash

**Vegetables**

Beets  
Broccoli

hot peppers (anaheim, hatch  
chili, poblano, jalapeno,  
shishito, fish pepper,

### Wholesale Market Readiness of Products

**Vegetable Farm 1** produce is ready for wholesale trade. They have space for packing, sorting, grading, storage, cooling and refrigeration. They intend to be GAPs certified in 2016.

**Vegetable Farm 2** is working with Wegmans, Coastal Sunbelt and Harris Teeter; and is very interested in working with a wholesale food hub. The farm has its own packing methods and will build their packing and storage needs around those of the retailer. The farmer intends to grow 30% more than what the retailers need /week, if need be the farm stand will take seconds. Coastal Sunbelt has shared a list of what they need, clarified the type of packaging they want, specifications for fruits and vegetables. Farm is certified organic and will have GAPs for 2016 growing season.

**Vegetable Farm 3** has a retail store and sells only retail at the store and through a CSA (pick up at the retail store). The farm is GAPs certified and uses IPM, and does not grow any GMO modified fruits or vegetables.



**Vegetable Farm 4** has tables, sink, supplies for packing. They sell wholesale to the Common Market in Frederick , and sell direct at both the Frederick City market and at the West Frederick Farmer's Market with Summer Creek Farm. The farm is known for its peppers and variety pack of cherry tomatoes, varieties that are top in flavor. Certified organic and working on Maryland GAPs.

## Marketing and Sales

**Vegetable Farm 1** customers span ages from young professionals to families to older couples, racially and ethnically diverse. They sell direct through farmer's markets and CSA program. They sell some wholesale and donate to Carroll Food Sunday (food bank) in Westminster and Bethel Church in Littlestown.

- Direct: Farm 1 is making good money at the farmer's markets, but it isn't something they want to always do. They have a young child and might not want to work every weekend at a market. The market is fickle. If it rains they might not sell much (and they are thinking about hiring someone who knows the product and customers.)
- Direct: Farm 1 has a 150 – 200 member CSA delivered to DC on Wednesday, with stop in Annapolis at Chesapeake Bay Foundation, and to Baltimore on Saturday. DC deliveries are pre-boxed, dropped at home and work locations. The last stop in Baltimore delivery is to a bike shop and last stop is market style . Cost is \$615 for a 20 week season (starting June 1<sup>st</sup>), payment in full unless someone needs to make payments. This year they are trying a CSA Management Program called Farmego that allows people to place and change orders. Use reusable bag, looking for reusable plastic boxes that fold flat and can be cleaned.
- Wholesale: Summer squash to Carroll County Hospital, but with changes in management that relationship needs to be renegotiated. Farm 4 has worked with some restaurants in Baltimore but restaurants didn't seem that interested in continuing with those relationships. For direct marketing and small scale wholesale branding is important, but when selling to large retailers branding is probably more important to the retailer for marketing purposes than it is to the him.

**Vegetable Farm 1** uses online advertising, facebook ads, Baltimore Sun magazine inserts, emails and phone for CSA, and spends very little time cultivating wholesale.

**Vegetable Farm 2** communicates and works with the following retailers:

- Wegmans: all online, farm puts online what it has and if Wegmans doesn't get in touch farmer should ask why not? Wegmans has a hub and farms and can supply all 80 stores if need be. Wegmans has a system for filling orders, packing and shipping – they order by week and season. Farm must deliver to Wegmans in cooler/truck. Wegmans does not create contracts with farmers. Payment is immediate upon delivery.

- Coastal Sunbelt: picks up produce in refrigerated truck, it is all organic so no need to sort and separate. CS rep might create contract with farm; will set up payment terms as farmer wishes. Farm wants COD since he fears crop loss at the retailers loading dock.

Price set is done through negotiation. Wegmans is willing to pay .10-.20 more than what they pay to their own distribution hub. Coastal Sunbelt is negotiable. Farmer is willing to take less money for organic by selling quantity. “I prefer to sell large quantities of organic than small amounts at a farmer’s market. It’s practically the same amount of time and labor...and you get a lot better food to the market place” All buyer/grower meetings are in winter with final decisions in March on fixed volumes and prices. Maintaining farm brand is nice but not that important. Wegmans markets the farm because they want to work directly with farmers, and its good for their business.

**Vegetable Farm 3** currently sells all fruits and vegetables retail. There might be interest in wholesale, and FFH will approach this farm for their interest in participating in the developing online Frederick Food Hub Market Place. The farm also houses the Mad Science Brewing Company, the first Southern Frederick County farm brewery. The brewery uses hops, fruits, vegetables and other products grown on the farm in their beer batches. They have about 230 hops plants of Columbus/Zeus, Nugget, Centennial, Cascade and Magnum. The brewery also has a CSA.

**Vegetable Farm 4** doesn’t need capital since they are still working and investing slowly to grow the farm. Would like to sell more wholesale in 2016. Customers are those who are looking for organic for their families, or are foodies. Experience with Common Market is that they are super easy, Moms is too big. This farm would like to sell dried hot pepper flakes. They deliver to Common Market by van 1x/week contact Tues AM with product availability information and deliver that night or next day. Prices change but Common Market gives them advance notice of approximate cost. Terms of payment if 15 days. Have never had any long term arrangements. They spend time on sales and marketing preparing for the direct markets: Friday picking and packing, Saturday market pick and pack, Sunday market (May – November). Name branding is very important but not always done at the Common Market.

## Expectations

**Vegetable Farm 1** suggests that for restaurant demand that there be an online system for farmer to see competitive pricing and farmer could choose where they wished to sell. For grocery stores he thought it better for the price and quantity to be set.

**Vegetable Farm 2** wants to be sure that farm product is marked as Organic; also, would like to see organic price lower so that it becomes more accessible to more people. Farmer says he has a better chance of wholesale distributor/retailer buying from them if they visit the farm and learn their story; sometimes getting them to the farm can be a challenge. A wholesale distributor should be clear on sales & marketing services, type of packaging, quantity, frequency (how much/week), price, farmer wants to sell as fresh as possible to distributor so clarity is key. Farmer values his products as organic and local, but once he sells his product it is no longer his

and is up for whatever the retail wants to do with it Suggested happy hour topics: Mt Airy hydroponic farm, Love Dove Farm in Howard Co, Starting soil at Summer Creek Farm

**Vegetable Farm 3** expressed some interest in wholesale, but the farm owners have little time to devote to it. There is tremendous potential for the future when FFH has infrastructure and pick up ability to facilitate product transportation. This farm has greenhouse capability and – should they be interested – they could help meet the off season institutional demand.

**Vegetable Farm 4** believes that a wholesale distributor could help if willing to work with a small producer. They would expect 15- day payment period. Expectations with respect to disputes would be openness and communication. Used to do CSA, this year are doing market share with Finline Poultry and Meats in Keedysville on 340. People buy \$25 shares and 5% discount and can pick up at farm or farmers market. If working with a food hub they would expect communication 1 time per week.

### **Other needs and interests**

**Vegetable Farm 1** wants to learn about successful organic asparagus growers, and if there are any companion plants that produce when asparagus isn't. The Farm Credit Agency Frederick Office has been a great resource for their farm growth.

**Vegetable Farm 2** has no additional needs at this time.

**Vegetable Farm 3** had no additional needs or interests other than to stay on our mailing list and to keep in touch.

**Vegetable Farm 4** has a hoop house (21 x 96) and its great/used FSA grant program and they reimbursed portion of purchase price; biggest barrier is erecting the hoop house; there is no one around to put up high tunnels – cost the same price to erect as to buy the hoop house! They worked on a business plan with Future Harvest CASA and UMD Ag Marketing.

In this research alone we interviewed vegetable growers who collectively have access to one-sixth of that area needed to provide all the vegetables necessary to meet local (Frederick County) needs. Continuation of this research and data collection for use in the Frederick Food Hub (online) Market Place we can gradually augment the acreage in wholesale production to eventually feed our people food grown here. There are more than “just planting” challenges to increase this acreage and provide for the people of this county. Community FARE will work to address those challenges.

## Appendix 7: Fruit Supply

### General Information

**Fruit Farm 1** planted 270 aronia berry plants in 2010, upon the recommendation of a University of Maryland researcher. The farm is in New Midway, Frederick County MD. They have ¼ planted in berries, and have 13 acres overall. The farm owners work full time off the farm.

**Fruit Farm 2** is a 25 acre with certified organic acreage near Libertytown, it started producing in 2003. It had been a part time occupation until this year when the owner retired from her full-time employment. She has 3 acres of certified organic vegetables (targeted to fill specific restaurant demands) and 1 acre in blueberries and raspberries. More bushes are coming in to production this year and next, so yet to know what production will look like. Harvests product between end of June and into September. Other acreage in soil conservation program for 5 years (cover crop program). In 2021 there will be an additional 11 acres available, and there are currently 2 acres on which owner is considering for raspberries, strawberries and maybe cut flowers.

**Fruit Farm 3** is a 72 acre farm with 12 acres in production and 60 available for planting. Fifty-75% of the farmer's income is from farming. The farmer lives on the farm and has fruit processing facility and retail store in Jefferson MD.

### Products

**Fruit Farm 1** sold all production in 2013 to McCutcheons to make jam. In 2014 an article came out in the Frederick News Post and they sold all their berries to people who bought them off the farm. In 2015 they didn't sell any due to illness in the family, they didn't harvest. They are looking for a wholesale market to sell the entire 2000 lbs. of berries. Their berries sell for \$3/lb.

**Fruit Farm 2** is known for its berries. Annual production in 2015 was 500 pints of blueberries and expect 600 pints in 2016. They lost all their raspberries in 2015 to a soft fruit pest like fruit fly, spotted wing drosophila (SWD) – When they found the SWD they pick the bad berries, separated from good berries and practiced sanitation. They pulled all the late varieties and discarded them. They lost at least 200 pints of blueberries. They could have used the spray, Entrust, but didn't. They will prune – which helps too.

**Fruit Farm 3** planted their first 1000 trees in 2001 and started producing fruit in 2005. They have over 3000 semi-dwarf trees on nine acres and over forty-five varieties of baking and cider apples. The varieties are: Arkansas Black, Ashmead's Kernel, Baldwin, Blue Permain, Bramley's Seedling, Brown's Apple, Bulmer's Norman, Caville Blanc, Crab Apples, Dabinett, Egremont Russet, Fameuse, Fortune, Freedom, Golden Russet, Goldrush, Red Gravenstein, Grimes Golden, Harry Master Jersey, Hewes Crab, Jefferis, Lady, Liberty, Maiden Blush, Miller Red, Newtown Pippin, Pittmaston Pineapple, Pittmaston Pineapple, Pixie Crunch, Porter's Perfection, Red Gravenstein, Redfield, Rhode Island Greening, Roxbury Russet, Shizuka,

Snowsweet, Splendor, Stembridge Cluster, Stoke Red, Summer Rambo, Sundance, Sweet Coppin, Tremlett's Bitter, Vilberie, Wickson, Winesap and Zestar.

## Wholesale Market Readiness of Products

**Fruit Farm 1** cleans and packs the berries for delivery on the farm. The berries freeze well and keep in the freezer for up to 2 years.

**Fruit Farm 2** makes a sorting facility in the kitchen within their air-conditioned house, they assemble in their dining room and use an air conditioned car to transport to market. They no longer sell at farmer's markets, for them it is an ineffective means to sell product. Farm deals directly with restaurants and grocery stores, and is selling to Moms in Rockville. The farm will be GAP certified this season. Flying Pig Farm is not interested in accessing capital as they'd rather keep things small and manageable. People know their product and branding is very important. Flying Pigs Farm needs markets for their products, but would like to sell direct to keep as much money as possible. Restaurants only accept small quantities which means many deliveries however they really appreciate the produce and last year finally got delivery days to 1-2 days/week. They would like to work with large grocery stores where they can drop entire day of picking at one location. Owner told a story about a My Organic Market "blueberry blowout" where Mom's brought in New Jersey blueberries and sold them dirt cheap. MOM's produce manager didn't want to put out Flying Pig's berries because they were so much more expensive, that was until customers demanded them!

**Fruit Farm 3** processes their fruit so the products are wholesale ready. They manage pests using IPM and track harmful bugs in the orchard; they only spray for those specific pests. The farm uses pheromone traps. They do not blanket spray nor spray with organophosphates.

## Marketing and Sales

**Fruit Farm 1** expressed interest in selling to the public schools for their use in fruit smoothies.

**Fruit Farm 2** sells to four (4) restaurants (including Common Market Café, Orchard and Wine Kitchen) in downtown Frederick order 1 time/week, and all deliveries are made in one day. Some of the products are: berries, lettuce, tomatoes, edible and cut flowers, mixed greens, romaine lettuce, Swiss chard. They often pay COD, but she gives them 15-30 days. Flying Pigs spends about 25% time on sales and marketing. Transparency, core values and mission, fair trade and terms of payment are all important to Flying Pigs.

**Fruit Farm 3** sells 20% of their apple cider and hard cider wholesale, 70% retail and 10% at farmer's markets. The farm could increase production with additional cold storage and processing. They are very interested in making pies and pie filling.

## Expectations

**Fruit Farm 1** is very interested in selling all of their berries to a food hub. They are interested in making these “superfood” berries available for public “consumption”, but not at all interested in marketing them.

**Fruit Farm 2** says that a food hub could be an asset as long as they didn’t suffer much in price loss. Perhaps as they increase production a food hub will offer more to them. Flying Pigs is interested in food safety certification and perhaps in learning techniques for wholesale product harvest and preparation.

**Fruit Farm 3** expressed interest in selling more wholesale and has attended both the Community Food Assessment results presentation in March 2015 and the Wegman’s grower meeting in November 2015.

### **Other needs and interests**

**Fruit Farm 1** is unsure about growing more than what they currently produce.

**Fruit Farm 2** is interested in food safety certification and perhaps in learning techniques for wholesale product harvest and preparation.

**Fruit Farm 3** has a 7-acre parcel with a house on it that he would like to see used by a beginning farmer. Community FARE put him in touch with Future Harvest CASA – they have already begun talking.

## Appendix 8: Meat Supply

### General Information

**Meat Ranch 1** is a 173 acre farm in Washington County purchased in 1973 to grow organic grains and ranch beef cows. It is a full time operated certified organic beef cows and certified organic crop operation. Usable farmland is 136 acres, currently operating at full capacity. The farm owner is looking for opportunities to expand.

**Meat Ranch 2** has been in farming their whole lives, currently make about half their income from ranching. They farm the old fashioned way and do their best to take care of animals. They have 32 calves and are transitioning to cow-calf operation, and they keep getting heifer calves which are now having babies. In another year they won't have to buy more bottle babies. They don't vaccinate and want to stay closed and disease free. Neighboring farm (their family) has two hog barns, one that holds 850 and another that holds 250 hogs, both with slated floors and manure pit below.

They raised antibiotic free pigs in small barn for farmer's market until their pigs got porcine epidemic virus (in 2015); has yet to show up this winter. They intend to use big barn for more hogs. Currently getting .50/lb. for pork but need to get .65/lb.; raising for feed mill. They were taking the pigs to Smithfield's for slaughter (which was bought out by a Chinese company).

**Meat Ranch 3** was started with father in 1985, but he took over in 1988 and bought farm in 1992. He has farmed all of life. The farm is located at 2148 Rohrsersville Road, MD Route 67 Knoxville, MD 21758. All 250 acres is either in hay or pasture, no grain.

**Meat Ranch 4** has been with this owner since 2011. It is located near route 15 just south of Thurmont, with a Frederick address. Farming is not a full time occupation. They raise all natural grass fed beef, pastured non GMO pork and free range chickens for eggs. They have a total of 146 acres on two farms; one (25 acres) north of Frederick near highway 15, and another in Thurmont. They raise Belted Galloway Scottish Highland beef cows, raise them for 24-27 months until they are 850-1000 lbs. when they go to butcher.

### Products

**Meat Ranch 1** grows barley spelt and hay, sells grains at Small Valley Milling in Halifax PA (<http://smallvalleymilling.com/>); he specializes in and has a reputation for spelt. He has 92 head and could slaughter 30 cows and steers /year. His neighbor buys the steers once a year in April and May. Some years price is good, some not. Used to sell call cows. Uses Huffman Meats became organic certified meat processor; has a freezer with monitor and 365 log that is inspected by the state; he has a permit. His advisor is Myron Martin who lives outside Knowville MD and has an organic dairy farm and a little store (301-432-2974)

**Meat Ranch 2** sells beef, pork and lamb. The rapid sellers are their sausage, aged beef, ground beef, lamb and there's a waiting list for filet mignon.

**BEEF:** They have 32 calves and are transitioning to cow-calf operation, and they keep getting heifer calves which are now having babies. In another year they won't have to buy more bottle babies. They don't vaccinate and want to stay closed and disease free. They butcher year round and do 12-13 steer/year (approx. 1/mo.).

**PORK:** Neighboring farm (their family) has two hog barns, one that holds 850 and another that holds 250 hogs, both with slated floors and manure pit below. They raised antibiotic free pigs in small barn for farmers market until their pigs got porcine epidemic virus (in 2015); has yet to show up this winter. They intend to use big barn for more hogs. Currently getting .50/lb. for pork but need to get .65/lb.; raising for feed mill. They were taking the pigs to Smithfield's for slaughter (which was bought out by a Chinese company). They butcher 35-40 hogs/year (approx. 3-4/mo.).

**LAMB:** 40-45 lambs/year (4 lambs/mo.); Challenged between mid august – mid sept because butchers are busy with ag fairs. Offered whole cleaned lamb for wholesale: \$300/ 100lb lamb ( 50# - 60# hanging weight. Shufts butcher will include all the parts (including head) that might be of interest for Asian market. Their lambs are grass fed, not gamey, have some unaltered intact males, females

**Meat Ranch 3** has 80 milk cows, and 100+ offspring (heifers and bulls they use for meat market) They sell Dairy to Trickling Springs in Chambersburg PA where the milk is pasteurized using low heat. They used to sell to Organic Valley but opted for Trickling Springs since it is more local. They sell 700,000lbs milk/year to Trickling Springs (and My Organic Market is Trickling Springs largest milk customer). Trickling Springs makes 100% grass raw cheese and butter (look at the Trickling Springs video.) Their history: started grazing in 1996 using mixed ration. In 2004 they were grazing but cows were grain finished. In 2007 they became certified organic. They are part of the Amazing Grazers Network; there will be an Advanced Grazer Workshop April 11-12 at Peace Hollow Farm. They suggested contacting another grazer with 20 cows on 80 acres: Tom Garnett, retired from Smithsonian Institution, tel: 202 957 5138.

**Meat Ranch 4** has 11 chickens and produce 11 eggs/day. They sell 7 steer and 8 pigs/year which they take to the butcher in groups of 4. They get 4 pigs in April, and pastures them until July; they get 4 in June and pastures them until September. Each pig grosses \$800, and cow grosses \$2k at most. Eggs is their biggest seller, and now sell beef jerky at liquor stores. They have a reputation for natural meat, particularly pork roasts and people come up from Montgomery County for grass fed brisket.

## **Wholesale Market Readiness of Products**

**Meat Ranch 1** sells grain wholesale to mill. No cows wholesale but is interested.

**Meat Ranch 2** takes all animals to the butchers (Smuckers in Mount Joy, PA, Wagners in Hagerstown and Shufts in Thurmont), deliver some of their packaged meat to the Hagerstown Coop and bring a lot of it back to the freezers on their farm. Note: Wagners makes the best sausage and great bacon. Smuckers makes beef jerkey, hot dogs, beef Italian sausage, chorizo and kielbasa.



**Meat Ranch 3** sends their meat to Shriver's Meats in Emmitsburg for butchering; meat is wrapped in plastic and paper. Seventy percent (70%) gets sold out of Shriver's: most picked up there by two CSA's out of Virginia that sell about \$60k in meat/year; 30% comes back to the farm for the roadside stand (permitted by county). State health department authorizes them to sell meat by the piece. The farm has a generator. He is looking for a freezer trailer to aggregate meat. Organic certification since 2007, Certified GMO free, Certified organic grass. (Shriver's butcher humanely, cows walk down chute in dark and hit them on the head. No adrenaline rush. Old school.) Wrap in plastic and paper. Also sells wholes or halves through Shriver's (10% off 50lb and 20% off 100 lbs. of meat); those orders come from calls to their farm. The butcher buys the beef and the purchaser pays for the beef and butchering.

**Meat Ranch 4** processes their meat at Shuffs in Thurmont and at Stoney Point in Lewistown PA. They have coolers and freezers, and a roadside stand where they sell their products. They get very little business and seem very frustrated with their lack of customer base and inability to penetrate the market. Product list and prices below.

## Marketing and Sales

**Meat Ranch 1** Unclear if any time was spent on marketing, and seemed to need (and welcomed) support on that front, as well as farm and business planning. Also unclear why he isn't part of the Amazing Grazers Network. The farm has sold beef at the Hagerstown City Farmer's Market; noted that Frederick County market could be better than Washington County. Finds current organic beef price on website: *Maryland Organic beef prices*. He sells 500-600 lb. non finished animals to neighbor who finishes them out and sells them. Sometimes delivers ½ steer to a single customer which is good pay. Their goal is to be 100% grass fed; has been transitioning to multi-species grazing; hay is from his farm. Also has beehives and has certificate for honey bee colonies in Maryland. Will be making and selling honey.

**Meat Ranch 2** sells mostly to middle and upper middle class families. Their label is important, as is their branding of no hormones nor antibiotics. Sales and marketing require 60% of their time between May and October, and 30% of their time between November – April. Email/online customers pay \$100 to hold spot on list to get product, markets are COD and Valley Coop pays within 15-30 days

- Direct sales 55%: Hagerstown year round Farmers Market (Saturday), Ft Detrick (biweekly), Shady Grove, Cheverly (outside DC), and Wednesday at Elk's Club, Boonesboro Farmers Market
- Online ordering 25%: via email lists they have collected, or via website
- Wholesale 20-25%: Hagerstown Valley Coop Cooperative - deliver on Thursday, coop marks it up 30% and then sends money within a week;
- Wholesale: Meritus Hospital (50-200lb pork sausage at \$4.95/lb.), note that it costs as much to butcher a pig as it does to raise it)

**Meat Ranch 3** accepts cash or check at the retail road side market. The farm charges the butcher \$3/lb. hanging weight, and CSA pays butcher. Processing is \$60 kill fee \$.42 cut

wrapped and frozen in paper. The farm gets prices for retail from the Hedgeapple Farm Roadside Market in Buckeystown (Frederick County) and charge \$1 under that price for their meat; seems advantageous to do it that way. Except for filet mignon – which they sell for \$20 and Hedgeapple sells for \$27. For wholesale they figured up what it costs for each piece and then adds it up; could probably sell their meat for more. Has an agreement with CSAs on how many cows he will sell them each year. They don't really spend time or money on marketing – it's all word of mouth. They spend time on sales at their farmer's markets, and on the phone with CSA business. Farm identity is important so that people know what they are eating. The farmer offered their farm budget to demonstrate how their profit had increased since going free range and certified organic.

**Meat Ranch 4** Both the Amazing Grazers Network and Farm to Fork offered them marketing opportunities which they really appreciated. The Farm to Fork event offered them a real opportunity to sell to restaurants and was a money maker for the farm since they were able to move their produce. They don't have wholesale prices, but need to consider wholesale. Unclear how much they could expand their operation; it seems they would if there were markets but they see real obstacles with solid markets for their meat. They expressed frustration with Frederick County; when one looks at the county's website it looks to be farmer pro, but in reality the county puts up roadblocks to farmers.

## Expectations

**Meat Ranch 1** holds transparency, core values and mission and fair trade as important. The terms of payment were not as important. Very little expectations and at this time doesn't have a vision for how a distributor could work with them, but hopes it would be a good experience.

**Meat Ranch 2** would like to raise more pigs and find an outlet for pork. In terms of certifications the farm has a nutrient management plan in order to spread manure. She has taken Annie's Project classes and attended food expos. They would like a certification for humanely raised animals. They would like to work with a food hub and would want to know how many lbs. of meat, sausage and steaks would be necessary, who would handle the butchering, hauling and labeling? Their brand is important to them. They expressed concern over trustworthy processing, that their animals are attributed to them and not someone else (they had an experience where instead of getting their lamb back they got a 4-5 year old sheep/mutton).

**Meat Ranch 3** could use a webpage or some marketing assistance. Is interested in working with others in the Amazing Grazers Network to market and sell more beef.

**Meat Ranch 4** – is interested in online Market Place. Needs to build customer base.

## Other needs and interests

**Meat Ranch 1** expressed great interest in identifying workable economic models to increase value/acre and business planning for scaling up and potential financing for it.

**Meat Ranch 2** is identifying workable economic models to increase value/acre and business planning for scaling up and potential financing for it.

**Meat Ranch 3** has a good system for raising and selling their products but would like to grow their business and is interested in working with a food hub to do that.

**Meat Ranch 4** – is interested in online Market Place, needs greater access to markets.

## **Appendix 9: Supply from Diversified Farms (that sell fruit, vegetables, meat and eggs)**

### **General Information**

**Diversified Farm 1** has been in operation since 2007 under the current owner. He does not farm full time, farms on 33 acres and is not farming at full capacity. He gets 15% of his income from sheep and cows. He has a “visitor center”, shop with several coolers and a place to pack and wash produce. The farm has 1 winter employee, 1-4 in the summer depending on product planning and uses interns.

**Diversified Farm 2** has existed for many years, the farmer has been farming the land full-time for 6 seasons. He has 90 tillable acreage, currently 20 acres in vegetables They grow vegetables, cut flowers, animal proteins (pork, chicken turkey and eggs) and sell 80% at Farmer’s Markets in DC and through a CSA. They try to do everything organically. Got a Keeva Loan and support for irrigation equipment.

### **Products**

**Diversified Farm 1** has small number of product, would like to increase production based on market demand.

#### Meat

Beef

Lamb

eggs

#### vegetables

okra

ichybon eggplants

tomatoes

Farm 12 has a reputation for eggs and premium number 1 tomatoes with ph4.5, premium (sells #25 = \$50-\$75), and number 2 (#25 about \$25). They sell 1000-1500 starter tomato plants (and either sell the starters or fruit). The greenhouse is active April – November, garden is active May – September. Would like new customers and to sell more whole lamb or cows.

**Diversified Farm 12** has a 3700ft<sup>2</sup> high tunnel in production, a 1000ft<sup>2</sup> heated greenhouse in use and a 3500ft<sup>2</sup> tunnel to be built.

FEASIBILITY ANALYSIS FOR A FOOD HUB IN FREDERICK MARYLAND 5/11/16)

Vegetables

Beans

- Provider (green)
- Carson (yellow)
- Royal Burgundy (purple)
- dried beans

Beets

- Red Ace
- Chioggia

Blankoma

- Touchstone Gold

Broccoli

- Blue Wind
- Amadeus
- Green Magic

Cabbage

- Caraflex (cone)
- Fazio (small head)
- Red Express
- Tenderheart (large flat)
- Alrosa (savoy)
- Rubicon (large)

Carrot

- Rainbow
- imperator-types
- panota-types

Cauliflower

- Snow Crown (white)
- Griffiti (purple)
- Cheddar (orange)
- Romanesco

Pop Corn & Ornamental Corn

Cucumber

- Diva (seedless)
- Marketmore (slicing)
- Jackson (pickling)
- Lemon, Armenian

Eggplant

- Galina, Dancer, Clara (Italian)
- Orient Express (Asian)
- specialty (Fairy Tale, Nubia)

Garlic (German Extra Hardy)

Greens (Collards + Kale)

- Top Bunch (collards)
- Winterhar (curly)
- Red Russian

Toscana (Lacinato)

Greens (Salad)

- asian greens mixes

- romanesco
- lollo
- leaf

- butterheads, bibba

Leeks

Melons

- Sarah's Choice
- Sugar Cube
- Sun Jewel (Korean)
- San Juan (cantaloupe)
- Snow Leopard (honeydew)
- cantaloupe

Okra (green and burgundy)

Onions (red/white scallions)

Onions (yellow and red bulbs)

Parsnips

Snap Peas

Peanuts

Bell Peppers

- Ace (red)
- Islander (purple)
- Elaxochuac (yellow)
- Gourmet (orange)
- Sweet Chocolate
- Specialty (Carmen, Lunchbox)

Hot Peppers

- El Jefe (Jalapeno)
- Tiburon (Poblano/Ancho)
- Habanero
- Highlander (Anaheim)
- Chevenne (Cayenne)

Potatoes

- Yukon Gold
- Red Pontiac

Spinach

Strawberries

Sweet Potatoes

Swiss chard

- Bright Lights
- Foodhook

Pumpkins

- New England Pie
- Rouge Vif d'Etampes
- farfalle
- Long Island Cheese
- jack-o-lantern types

Radishes

- Rover (red)
- Easter Egg
- D'Aragon (French)

- Black Spanish
- daikon

- Red Meat (watermelon)

Summer

- Walham (butternut)
- Delicata
- Blue Hubbard

- Carnival, Honey Bear (acorn)

Tomatoes (red and yellow)

Heirloom Tomatoes

- Brandywine
- Cherokee Purple
- German Stripe
- Bruders
- Pink Berkeley (striped)
- Green Zebra (striped)

Cherry Tomatoes

- Sun Gold
- Black Cherry
- Sweet 100

Turnips and Rutabagas

- salad turnips
- Purple Top

Watermelons

- Crimson Sweet
- Sugar Baby
- Little Baby Flower
- Farmer's Wonderful

Other

Herbs

- basil

Mushrooms

- oyster

Flowers (bouquets)

- Zinnias
- Celosia
- Gomphrena

Marigolds

Status

Flowers (stem)

Sunflowers

- Tulips
- Daffodils

Pastured Eggs

Pastured Chicken

- whole birds
- cuts

Pastured Turkeys (TG only)

Pastured Pork

Key	
	non-wholesale item
	common wholesale item
	large quantity wholesale item

## Wholesale Market Readiness of Products

**Diversified Farm 1** is not GAP certified. He does not use pesticides - uses smoke to get rid of pests.

**Diversified Farm 2** processes 100 birds every 3 weeks using a homemade plucker and an aluminum scalding plot. The turkey and chicken that is sold at DC markets (outside Maryland) goes to Locust Point Farm USDA facility in Elkton for processing. If he were selling in MD he could sell up to 20,000 birds/year. They take their pork to Wagners Meat Locker in Mt Airy and Hoffman's in Hagerstown for processing which Full Cellar sells at the Fresh Farm Market run Farmers Markets in DC (sausage \$5/lb. and \$6 shaped). Farm 13 would like to do more gourmet meat. Ordering for Full Cellar Farm Direct CSA is done through subscription (45 shares in winter. An email goes out to shareholders on Sunday with Thursday drop off at a DC home. Farm 13 uses google docs to add any extra items. The produce is harvested on nicest weather day 3-4 hours before CSA is packed, boxes are delivered using Sprinter van. Share holders pay 1 month ahead of time. Also in is season plans is some growing for Hometown Harvest. Farm 13 delivers.

## Marketing and Sales

**Diversified Farm 1** sells 50% wholesale (mostly eggs) to Whole Foods and Yucca, 10% wholesale to Chambersburg Market and sells 40% direct through a 75 member CSA. If purchase is \$500 or more then 30 days is acceptable for weekly purchase. Random purchases and order less than \$250 must be paid on delivery. The farm has a truck and delivers some produce, customers also pick it up at the farm.

**Diversified Farm 2** will look at cost and price accordingly, has a lot of exposure to other growers at markets and set prices accordingly. If has bumper crop will sell what he can get \$1.50 bunch/bunched greens. He spends 36 hours/week preparing for farmer's markets and another 4 hours on church that gets 1 box/month. Brand name is very important.

## Expectations

**Diversified Farm 1** does not need services, just better markets. He honors the buyers right of refusal when not under contract. When under contract both parties have to comply without any deviation. Transparency and terms of payment are important.

**Diversified Farm 2** would appreciate a distribution center that could provide cold storage, sales and marketing, and connection to wholesale. It might also be a place to sell an abundant supply. Transparency, core values and mission and fair trade are important, terms of payment is semi-important.

## Other needs and interests

**Diversified Farm 1** is interested in food safety certification.

**Diversified Farm 2** would like to learn workable economic models to increase value/acre, business planning for scaling up and potential financing for it, staff training for wholesale product harvesting and preparing. Is interested in going through a mock audit for food safety certification.

## Appendix 10: Amazing Grazers Network participants in Frederick, Carroll and Washington Counties

Evermore Farm  
John & Ginger Myers  
150 Rockland Road  
Westminster, MD 21158  
443-398-6548  
[ginger@evermorefarm.com](mailto:ginger@evermorefarm.com)

Grass-based, family farm that raises animals in pasture without the use of growth hormones or antibiotics. USDA inspected, meat frozen and vacuum packaged.

Gravel Springs Farms  
Paul Sorenson  
3401 Lowman Lane  
Union Bridge, MD 21791  
410-861-0473

[paul@gravelspringsfarms.com](mailto:paul@gravelspringsfarms.com)  
gravelspringsfarms.com

Certified organic and sustainable. 100% grassfed

Green Akeys Family Farm  
Michael Akey  
2301 Cross Section Road  
Westminster, MD 21158  
greenakeys.com

Green Akeys is a small, diversified family farm that raises grass-fed beef, grass-fed lamb, and pastured poultry. We belong to Slow Food USA, the American Pastured Poultry Producers Association (Mike is a board member), Belted Galloway Society, Katahdin Hair Sheep International, PASA, Future Harvest CASA, and the American Grassfed Association.

Lovell Cattle Company  
Jack Lovell  
232 South Springdale Road  
New Windsor, MD 21771  
410-635-6161 or 504-525-0208  
[jlovelljr@lovellandcompany.com](mailto:jlovelljr@lovellandcompany.com)  
lovellgrassfedcattlecompany.com

Lovell Cattle Company sells 100% grass-fed beef in wholes and halves. Animals are born and raised on a family farm. They are given free range on pastures certified organic by the state of Maryland and are fed certified organic minerals. No growth hormones are used. Product can be picked up frozen from the processors in either Mount Airy, Maryland or Mount Joy, Pennsylvania.

Schuler Real Properties  
Dr. Ronald D. Schuler DVM  
Carroll  
3140 Halter Road  
Westminster, MD 21158

410-840-9559  
[mistycreekfarm@hotmail.com](mailto:mistycreekfarm@hotmail.com)  
Grass-fed beef.

Wagon Wheel Ranch  
Brian Schiner  
661 W. Watersville Road  
Mt. Airy, MD 21771  
443-271-6850  
wagonwheelranch.org  
[bschiner@aol.com](mailto:bschiner@aol.com)

Grass-based farm that raises animals in pasture without the use of growth hormones or antibiotics. Products include grass-fed beef, lamb, goat, free-range pork, chicken and eggs. Products are sold at Whole Foods, Mom's, and the Common Market.

Country Pleasures Farm  
Eric & Lori Rice  
6219 Harley Road  
Middletown, MD 21769  
301-371-4814  
countrypleasuresfarm.com  
countrypleasuresfarm@gmail.com

Country Pleasures Farm sells certified organic, grass-fed Angus beef. The USDA-inspected, frozen beef is available by the cut, by the box or by the quarter. Products are available on the farm or (for an extra cost) can be shipped.

Full Cellar Farm  
Kip Kelley  
fullcellarfarm.com  
3901 Lander Road  
310-639-9711  
Jefferson, MD 21755  
[kip\\_kelley@gmail.com](mailto:kip_kelley@gmail.com)

Full Cellar Farm grows fresh vegetables, herbs, cut flowers and pastured poultry, pork and eggs. Though not certified organic, we aim to grow the prettiest and tastiest food for our local community in a way that leaves the farm healthy and productive for future generations. You can find us at area farmers markets, CSAs and local food hubs.

Grazy Days Family Farm  
Frederick  
Leah Mack  
grazydays.com  
Libertytown, MD  
301-639-2027  
[lecofarmer@gmail.com](mailto:lecofarmer@gmail.com)



Soy-free eggs (also corn-free eggs) from heritage hens ranging unhampered across acres of meadows and forest. We feed sprouted, local, certified organic feed as well as Fertrell's cold-processed fishmeal for extra protein to the layers. We never use pesticides, herbicides, antibiotics, or other toxic chemicals. We carefully avoid GMOs. Soy-free, pastured, heritage pork for pre-order. 100% grass-fed gourmet beef available summer of 2015 from heritage Rotokawa Red Devon and Irish Dexter steers.

Groff's Content Farm  
Julie & Bob Bolton  
groffscontentfarm.com  
14930 Bollinger Road  
301-447-6148  
Rocky Ridge, MD 21778  
[jtbolton1958@gmail.com](mailto:jtbolton1958@gmail.com)

sells pasture-raised and finished beef, lamb, holiday turkeys, whole chicken and free-range eggs. Beef and lamb are frozen and available in wholes, halves and split halves. Products are available at the farm and from the USDA-inspected processor in Emmitsburg, MD. The animals are raised without added hormones or antibiotics on certified organic pasture.

Hedgeapple Farm Frederick  
Dr. Scott M. Barao,  
Executive Director  
hedgeapplefarm.com  
Ryan Bapst,  
Farm Manager  
301-662-0226 3760  
Buckeystown Pike  
[sbarao@hedgeapplefarm.com](mailto:sbarao@hedgeapplefarm.com)  
Buckeystown, MD 21717

Hedgeapple Farm is a non-profit beef cattle operation that conducts applied agricultural and marketing research for the benefit of beef producers in the region. Natural, grass-fed Black Angus beef is sold in whole and half, and in 50 pound boxes. Market hours: Thursday 12-5, Friday 12-6, and Saturday 10-4.

Holterholm Farms  
Ron, Kathy & Adam Holter  
holterholmfarms.com  
5619A Holter Road  
301-371-4255  
Jefferson, MD 21755  
[ronholter@comcast.net](mailto:ronholter@comcast.net)

Holterholm Farms is a small certified organic family farm. Cattle are rotationally grazed on diverse pastures containing in excess of 30 different species of grasses, legumes and forbes. Cattle never receive grain. Beef is available in the late fall by the whole, half or split half (1/4). Laying hens rotate on the same pastures as the

cows and eggs are available at the farm. Pasture finished lamb available.

Miolea Organic Farm  
Carolyn Biggins  
mioleafarm.com  
5301 Doubs Road  
[farmer@mioleafarm.com](mailto:farmer@mioleafarm.com)  
Adamstown, MD 21710  
Certified Farmer, Certified Organic, GAP, IPM,  
Nutrient Management, Free-Range, Humane Farming,  
Soil Rotation, Heirloom and Heritage Breeds only.  
Water conservation.

Nick's Organic Farm  
Nick Maravell  
nicksorganicfarm.com  
2733 Buckeystown Pike  
301-983-2167  
Adamstown, MD 21710  
[nickmaravell@comcast.net](mailto:nickmaravell@comcast.net)

Nick's Organic Farm raises tender delicious Black Angus grass-fed beef, pastured chicken and turkey, and free-range eggs. Beef, poultry, and eggs are Certified Organic. Dry aged, USDA inspected, frozen beef is available in wholes, halves, quarters, eighths, and cuts. Also available are beef sausages, jerky and ground beef, in addition to organic poultry feed, hay, straw, grains, and cover crop seeds.

Open Book Farm  
Mary Kathryn & Andrew Barnet  
openbookfarm.com  
6600 Roy Shafer Road  
240-457-2558  
Middletown, MD 21769  
[openbookfarm@gmail.com](mailto:openbookfarm@gmail.com)

We manage our animals with three goals in mind: happy animals, healthy land, and healthful food. Continual rotation onto fresh, green pasture helps us work toward all three.

Persistence Run Farm  
Bill & May-Lin Adams  
persistencerunfarm.com  
10171 Masser Road  
240-409-1006  
Frederick, MD 21702  
[info@persistencerunfarm.com](mailto:info@persistencerunfarm.com)

Our mission is to establish a community-based farm where Mother Nature and environmentally sound agricultural practices meet. We breed and raise registered Belted Galloway beef cattle as well as Berkshire pigs through the summer months. Our all natural grass-fed beef and pastured non-GMO pork are

available by the cut in our on-farm market. We also have non-GMO, cage free eggs available.

Pipedream Farm  
Mark & Renee Billadeau  
3875 Oak Grove Place  
301-293-2797  
Middletown, MD 21769

[pipedream\\_farm@yahoo.com](mailto:pipedream_farm@yahoo.com)

Pipedream Farm sells pasture-raised Katahdin lamb. We take reservations for freezer lamb (whole or half) between July and August. Lamb is custom processed at a local USDA inspected butcher for customer pick up between October and December.

Rights of Man Farm  
Carol Myers  
rightsofmanfarm.com  
9120 Ball Road  
240-674-2733 and 301-674-2727  
Ijamsville, MD 21754

[info@rightsofmanfarm.com](mailto:info@rightsofmanfarm.com)

We raise beef cattle, goats, pigs and chickens and grow organic vegetables. Our beef cattle are grass-fed and finished and along with our goats are raised on organic grasses and hay. We sell frozen beef, pork, chicken and goat, organic brown eggs and veggies from our farm store and at local farmers' markets. The farm store is open Saturdays from 9-6 and Wednesdays from 4-7.

Ruth Ann's Garden Style Beef  
Steve & Ruth Ann Derrenbacher  
11051 Renner Road  
301-845-6766  
Woodsboro, MD 21798

[gardenstylebeef@msn.com](mailto:gardenstylebeef@msn.com)

We sell Angus grass-fed beef. Beef is available in whole, half and quarter bulk packages as well as by the cut. All bulk beef is picked up -- frozen and cryo-packed in see-through packaging -- from the processor in Mt. Airy in June and December by order only. Individual cuts and ground beef may be available for pick up at the farm throughout the year based on availability. The animals are grass-fed and finished with no added hormones or antibiotics.

Spring Pastures Farm  
Tom Garnett & Brooke Henley  
6801 Mountain Church Road  
202-213-4927  
Middletown, MD 21769

[springpasturesfarm@gmail.com](mailto:springpasturesfarm@gmail.com)

We produce grass-fed and grass-finished beef while restoring farmland through rotational grazing, sequestering more carbon than we remove from our

farm. We sell frozen beef by the side or by the individual cuts.

Summer Creek Farm  
Rick Hood  
summercreekfarm.com  
15209 Mud College Road  
301-271-9399

Thurmont, MD 21788

[farmer@summercreekfarm.com](mailto:farmer@summercreekfarm.com)

Summer Creek Farm features grass-fed certified organic chickens selling eggs only, no meat. Summer Creek Farm also sells certified organic vegetables.

Whitmore Farm  
Will Morrow  
whitmorefarm.com  
10720 Dern Road  
202-270-4137  
Emmitsburg, MD 21727

[info@whitmorefarm.com](mailto:info@whitmorefarm.com)

Whitmore Farm is a grass-based farm specializing in lamb, chicken, pork, eggs, and seasonal vegetables.

ZigBone Farm Retreat  
Marijke Torfs  
facebook.com/ZigboneFarmRetreat  
6612 Harbaugh Road  
[zigbonefarmretreat@gmail.com](mailto:zigbonefarmretreat@gmail.com)  
Sabillasville, MD 21780

Zigbone Farm Retreat is a 100-acre farm in Maryland's Catoclin Mountains. In addition to selling cuts of lamb and goat when available, we rent our naturally built retreat center for events and workshops

Alibaad Farm  
Ali Mohadjer  
alibaad.com  
4040 Mills Road  
Sharpsburg, MD 21762  
301-432-6863

[ali@satways.com](mailto:ali@satways.com)

Grass-fed and free-range in multiple pastures.

Clear Spring Creamery  
Clare & Mark Seibert  
14322 St. Paul Road  
Clear Spring, MD 21722  
301-730-6539  
clearspringscreamery.com

[seibert@clearspringcreamery.com](mailto:seibert@clearspringcreamery.com)

Clear Spring Creamery is Maryland's first organic farmstead dairy processing facility. Creamline milk, chocolate milk, drinkable yogurt drinks in six flavors and several cheeses are available for purchase at several Washington D.C. area farmers' markets. Cows

and processing facility are certified organic by the Maryland Department of Agriculture.

Corner Oaks Farm  
Mike Drake  
17112 Powell Road  
Sharpsburg, MD 21782  
240-675-5826  
[mikedrake12@gmail.com](mailto:mikedrake12@gmail.com)  
Selling Thanksgiving and Christmas turkeys

Evensong Farm  
Julie Stinar  
evensong-farm.com  
18502 Burnside Bridge Road  
Sharpsburg, MD 21782  
301-491-2224  
[julie@evensong-farm.com](mailto:julie@evensong-farm.com)

We raise heritage breed animals on pasture and in the woods. Primarily Red Devon Cattle, Old Spot and Large Black hogs, Freedom Ranger poultry, and a mixed flock of laying hens

Green Acres Farmstead  
Curvin & Glennis Eby  
19534 Reidtown Road  
Hagerstown, MD 21742  
301-992-7785  
[duet4ever@localnet.com](mailto:duet4ever@localnet.com)

Green Acres Farmstead offers beef raised naturally. Calves nurse their mothers until weaned, and then are fed all the high quality pasture they can eat along with pure water, fresh air, and warm sunshine. No growth hormones or antibiotics.

Crystal Springs Farm  
Troy Cool & Emily Siwarski  
19200 Geeting Road  
Keedysville, MD 21756  
301-432-5292  
[crystalspringsfarm@gmail.com](mailto:crystalspringsfarm@gmail.com)  
Pastured pork and eggs fed locally milled grain.

Many Rocks Farm  
Dietz-Band  
manyrocksfarm.com  
5127 Mount Briar Road  
Keedysville, MD 21756  
301-432-7296  
[manyrocksfarm@gmail.com](mailto:manyrocksfarm@gmail.com)  
Selling goat meat, Mulefoot pork, heritage ducks, chicken, and eggs.

Healthy Springs Eco-Foods  
Gilson Eby  
8673 Jordan Road

Fairplay, MD 21733  
301-582-6180  
We sell chicken, turkey, and eggs. Poultry is available fresh or frozen May through November. Products are available on the farm. Poultry is raised on chemical-free pasture without added antibiotics or hormones. Grass-fed beef and pork is sold by volume and by the cut. Meat is vacuum-packed and frozen. Raw milk is also available through herd-shares from pastured dairy cows.

Martin's Meadow Poultry  
Rufus Martin  
18220 Mansfield Road  
Keedysville, MD 21756  
301-491-8604  
Martin's Meadow poultry specializes in pastured chicken and holiday turkeys.

Mountain Valley Acres  
Darel & Melisa Myers  
2216 Rohrersville Road  
Knoxville, MD 21758  
301-432-5841  
[dmmymyers.4@juno.com](mailto:dmmymyers.4@juno.com)  
Cornish Cross broilers that are pastured in a portable shelter that is moved every day for fresh grazing. The chickens are processed as whole birds, cleaned and bagged, ready to be picked up same day fresh, or next day fresh frozen for your convenience.

Peace Hollow Farm  
Myron & Janet Martin  
Knoxville, MD 301-432-2974  
[myjan9@juno.com](mailto:myjan9@juno.com)  
Mouth-watering 100% grass-fed beef, dry-aged for 2 weeks. Sold by the cut, by quarters, or on the hoof.

Windmill Meadows Farm  
Jacob Horst  
20801 Leiters Mill Road  
Hagerstown, MD 21742 301-739-5258  
We sell grass-fed beef, milk-fed pork, grass- and milk-fed veal, pastured chicken, and brown eggs. All livestock are raised without antibiotics and hormones. Pastured chicken is available fresh or frozen, whole or cut. All other meats are vacuum-packed and frozen. Products are available by volume and cuts at the farm and at three Smart Farmers Markets: George Mason University, Centreville, and Purcellville, VA. Drop off points can be arranged on volume orders. On January 1, 2015, our dairy will be selling Certified Organic milk to Tricking Springs Creamery. The raw milk cheese will be made with organic milk but the processor is not organic so it will not be labeled as such.

## Appendix 11: GAP Certified Farms in Frederick, Carroll and Washington Counties

### Maryland GAP:

Allenberg Orchards, 20425 Splendor View Terrace, Hagerstown, MD 21740 (Washington County), [hallenberg@verizon.net](mailto:hallenberg@verizon.net) (301) 730-2494 Henry Allenberg

Babe's Berries, 12337 Cregger Rd, Keymar, MD 21757 (Frederick County) [babesberries@yahoo.com](mailto:babesberries@yahoo.com) (301) 676-2504 Sharon Cregger

Baugher Enterprises Inc 1015 Baugher Rd, Westminster MD 21158 (Carroll County), [cripley91@gmail.com](mailto:cripley91@gmail.com), (443) 340-6141 Cameron Ripley

Harding's Orchard, 14310 Harbaugh Church Rd, Smithsburg, MD 21783 (Washington County) (301) 824-7821 Donald Harding

### USDA Certified GAP:

Chesley Vegetable Farm, 13220 Edgemont Rd, Smithsburg, MD 21783 (Washington County) [chesveg@gmail.com](mailto:chesveg@gmail.com) (301) 824-7047 Matt and Mary Harsh - tomatoes

Edgemont Orchards, 13000 Jacques Lane, Smithsburg MD 21783 (Washington County) [mrjacques@verizon.net](mailto:mrjacques@verizon.net) (301) 824-7258 Brian Jacques - apples

Gardenhour Orchard, Inc PO Box 275, Smithsburg MD 21783 (Washington County) (301) 824-7466 Bill Gardenhour - apples

Houser's Produce Farm Inc 16517 Shaffer Rd, Sharpsburg, MD 21782 [jacobhouser@myactv.net](mailto:jacobhouser@myactv.net) (301) 223-6399 Jacob Houser – sweet corn, cucumbers, squash, tomatoes, peppers, watermelon, cantelopes, pumpkins

Pryor's Orchard, 13814 B Pryor Rd, Thurmont MD (Frederick County) (301) 271-2693 Gary Hauver - apples

Rinehart Orchards, 14511 Rinehart Rd, Smithsburg MD 21783 (Washington County) (301) 992-424- [rinehartjd@hotmail.com](mailto:rinehartjd@hotmail.com) John D Rinehart – apples peaches

# Appendix 12: USDA /MDA Certified Organic Farms in Frederick, Carroll and Washington Counties

Operation	City	Products	Name	Address	Phone Number	Email	
Chad McCuller	Union Bridge	CROPS: Hay	Chad McCuller	10570 Fountain School Road, Union	410-775-7649		
Flying Pig Farm	Union Bridge	CROPS: Blueberries, Raspberries, Tomatoes	Pamela Burke	9233 Bessie Clemson Rd, Union	301-898-8956	flypigorganic@gmail.com	
Gravel Springs Farm	Union Bridge	CROPS: Vegetables	Paul Sorenson	3401 Lowman Springs Lane, Union	410-986-0473		
Lowell Grass Fed Cattle Co., LL New Windsor	Westminster	CROPS: Hay, Pasture	John C. Lovell Jr.	3915 Barkhill Rd, New Windsor, MD	410-635-6161	jloveljr@lovelandcompany.com	
Max & Ruffy's, LLC	Westminster	HANDLING: 327 B.C. Banana & Coconut	Kelly Raiser	1201 New Windsor Rd.	301-424-1005	lokelly@maxandruffys.com	
New-R-Dun Farm	Westminster	CROPS: Flowers, Fruit, Grain Berries, Herbs,	Thomas Reinhardt	2439 Hughes Shop Rd, Westminster,	MD 21158	443-340-2712	tom@newrdunfarm.com
Bought The Farm, LLC	Thurmont	CROPS: Grain, Corn, Hay, Oats, Rye,	Charles E. Brault	13631 Greenham Road, Thurmont,	301-371-3167	char@brault.com	
Cutie Honey Farm	Frederick	CROPS: Hay, Pasture	Robert C. Harrington Jr.	5818E Jefferson Pike, Frederick, MD	301-695-0760		
Country Treasures Farm	Middletown	CROPS: Berries, Hay, Herbs, Nuts, Pasture,	Erica Be	6219 Harley Road, Middletown, MD	301-371-4814	eric@treasuresfarm.com	
Eight Bell	Taneytown	CROPS: Hay, Pasture	Greta Boyston	4028 Harley Road, Middletown, MD	410-376-4028	eric@treasuresfarm.com	
Fox Haven Organic Farm	Thurmont	CROPS: Corn, Hay, Oats, Pasture, Wheat	Dick Bitter	2534 Walker Rd, Thurmont, MD	301-748-2427	dcbitter@comcast.net	
Good Faith Farm	Middletown	CROPS: Berries, Transplants, Vegetables	Phillip S. Friedman	2104 Mount Ephraim Rd.,	301-597-9898	goodfaithfarm@comcast.net	
House In The Woods Farm	Adamstown	CROPS: Pasture	Carlynn & Brian Bggins	5504 Mount Ephraim Rd.,	301-466-6574	phill@houseinthewoods.com	
Midco Organic Farm	Adamstown	CROPS: Corn, Hay, Pasture	Myron Martin	2148, 2146 and 2142, Adamstown, MD	301-432-2974	myr@midcofarm.com	
Peace Hollow Farm	Knoxville	CROPS: Nursery	Steve Black	9120 Ball Road, Adamstown, MD	301-863-0714	hvm@peacehollow.com	
Recreation Farm	Adamstown	CROPS: Hay, Pasture	Earl Bell	14842 Sikes Bridge Road,	301-863-0714	hvm@peacehollow.com	
Rights Of Man Farm, LLC	Jamsville	CROPS: Hay	Sally Heber	6517 Fish Hatchery Rd, Thurmont,	301-898-3228	shadows@calocraftfarm@mdspring.com	
Riverstone Farm	Emmitsburg	CROPS: Vegetables	Ted Rogers	308 Main Street, Myersville, MD	301-712-6357	julie@sbursa.com	
Shadows Of Carolina Farm	Thurmont	CROPS: Corn, Herbs, Pasture, Rye, Soybeans,	Rick Hood	15209 Mud College Road, Thurmont,	MD 21788-1366	301-271-9399	famer@summercreekfarm.com
Sisu Sura Chocolates, LLC	Myersville	Wheat	Harry And Kathleen Ford	11411 Coppemine Road,	301-845-4301	fordfarm@crosslink.net	
Summer Creek Farm	Thurmont	CROPS: Transplants, Vegetables	Michael James	12739 Cahill Road, Hagerstown, MD	240-500-6791	bluberryhillveg@ad.com	
Sunsethyme Farm	Woodboro	CROPS: Fruits, Vegetables	Curran Eby	19534 Reddon Rd, Hagerstown,	301-992-7685	duet@ever@ocahnet.com	
Blueberry Hill Vegetables	Hagerstown	CROPS: Corn, Hay, Pasture, Rye	Charlie Klund	21167 Millers Church Rd,	301-790-2008	charlie.eklund@gmail.com	
Green Acres Farmstead	Hagerstown						
Meadow View Angus Farm	Hagerstown						
Salem View Farms	Hagerstown						

## Appendix 13: USDA Certified Meat Processors accessible to Central Maryland

### IN MARYLAND

- ☐ **J.W. Treuth & Sons** 328 Oella Ave., Baltimore, MD 21228 (410) 465-4650  
☐ <http://www.jwtreuth.com/> **Processes CUSTOM Beef ONLY**. NO private labeling/packaging. Call for hours. Kosher processing available
- ☐ **Old Line Custom Meat Company** 2639 Pennsylvania Ave., Baltimore, MD 21217 Approximately 63.9 miles away. (410) 669-2600 <http://oldlinemeats.com/> Processes Beef and Lamb. Dry aging available.  
☐ Hours: 7 a.m. - 3:30 p.m. (Monday-Friday) Private labeling available. Call for processed meat services. (Lamb sausage, etc.) Kosher processing available
- ☐ **Wagner's Meats, LLC- Mt. Airy Locker Company** 602-606 N. Main St., Mount Airy, MD 21771  
☐ (301) 829-0500 <http://www.wagnersmeats.com/> Processes beef, pork and lamb. Dry aging available.  
☐ Hours: 8 a.m.-5p.m.(Monday-Friday) & 7:30 a.m.-1 p.m. (Saturday) Sausage making and curing available. Private labeling available.
- ☐ **Hemps Meats, Inc.** 3740 Jefferson Pike, Jefferson, MD 21755 (301) 473-5700 <http://www.hempsmeat.com/> **Processes CUSTOM Beef ONLY**, NO private labeling/packaging. Dry aging: call for availability. Hours: 7 a.m.-5p.m. (Monday-Friday) & 7 a.m.-2 p.m. (Saturday)
- ☐ **Sudlersville Meat Locker** 204 E. Main St., Sudlersville, MD 21668 (410) 438-3106  
<http://www.sudlersvillemeats.com/> Processes beef, goat, lamb, pork and bison. Dry aging available. Hours: 8 a.m.-5 p.m. (Monday- Friday) & 8 a.m.-1 p.m. (Saturday) Call for details about sausage and curing. Private labeling available.
- ☐ **Maurer & Miller Meats** 3278 N. Main St., Manchester, MD 21102 (410) 374-2884 Processes beef, goat, lamb and pork. Call for information about services. (Hours, dry aging, sausage making, curing, etc.) Private labeling available.
- ☐ **Shuff's Meats** 12247 Baugher Rd., Thurmont, MD 21788 (301) 271-2231 Processes beef, goat, lamb and pork. Call for information about services. (Hours, dry aging, sausage making, curing, etc.) Private labeling available.
- ☐ **Woodlawn Farms** 4233 Harpers Ferry Rd., Sharpsburg, MD 21782 (301) 432-6425 Processes beef, goat, lamb, and pork. Call for information about services. (Hours, labeling, dry aging, sausage making, etc.)
- ☐ **Galvinell Meat Company** 461 Ragan Rd., Conowingo, MD 21918 (410) 378-3032  
<http://www.galvinell.com/our-services.html> Processes beef, goat, lamb, pork, and bison. Dry aging available. Hours: 8 a.m.-3 p.m.(Monday-Friday) & 8 a.m.-12 p.m. (Saturday) Private labeling available. Sausage making and curing available. Call for information.
- ☐ **Shriver Meats** 16432 Four Points Bridge Rd., Emmitsburg, MD 21727 (301) 447-2255 Processes beef. Does NOT accept pork. Call for information about services. (Hours, dry aging, etc.) Private labeling available.
- ☐ **Locust Point Farms LLC.- POULTRY (See below for additional option.)** 430 Locust Point Rd., Elkton, MD 21921 (410) 398-8765 Processes chickens, turkeys, and ducks ONLY! Call for hours.
- ☐ **Hoffman's Meats** 13225 Cearfoss Pike, Hagerstown, MD 21740 (301) 739-2332  
<http://www.hoffmanmeats.com/> Processes Beef, Goat, Lamb, and Pork. Dry aging available. Hours: 8:30 a.m.-6 p.m. (Monday- Wednesday), 8:30 a.m.-6:30 p.m. (Thursday & Friday), & 8 a.m.-4:30 p.m. (Saturday) Private labeling available. Call for information about processed meats (sausage, scrapple, etc.) and curing.
- ☐ **Horst Meats** 17807 Reiff Church Rd., Hagerstown, MD 21740 (301) 733-1089 Processes beef, goat, lamb and pork. Dry aging available. Call for information about services.

### IN WASHINGTON DC

- ☐ **Red Apron Butchery** (Nate Onda, owner - learned to cure meat in Italy) 709 D Street NW, Washington DC. 20004 202 524-5244 <http://redapronbutchery.com/>

## Appendix 14 Economic Impact Analysis

### Economic Impact Analysis

The Frederick Food Hub (FFH) is envisioned as a regional intervention to advance Community FARE’s mission *to help safeguard a diverse and healthy local food economy that will preserve farmland integrity and biodiversity and ensure that food grown [in and around Frederick County] is accessible to residents of Frederick County and its regional neighbors*. Creating the infrastructure to connect farmers to fair and transparent market opportunities is perhaps the best way to improve the vibrancy, viability, and diversity of regional agriculture. It is, in fact, the disappearance of this infrastructure—both social and physical—that has contributed to the decline of rural economies in many regions of the country while food systems have shifted from a regional orientation to a global one. In communities like Frederick and the surrounding

The Frederick Food Hub has the potential of having regional economic impact of nearly \$8 Million over five years while creating close to 50 local jobs

counties, the disappearance of farm activity has been exacerbated by suburban sprawl from Washington, DC and Baltimore. The Frederick Food Hub seeks to counter these trends by offering a

viable economic alternative for farmers and policy makers to justify investment in the growth of sustainable agriculture and the implementation of wise land use legislation.

At the center of this strategy is the Frederick Food Hub, which seeks to establish itself as a fair and transparent intermediary between regional demand segments and food producers in the Maryland counties of Frederick, Washington, and Carroll. In order for FFH to be an effective and sustainable intervention, it needs to operate as a viable social enterprise and demonstrate the ability to sustain itself financially after a period of startup investment. This study analyzes the potential economic impact of the Frederick Food Hub using a regional development tool provided by the Bureau of Economic Analysis (BEA) called the Regional Input-Output Modeling System (RIMS II). The flow chart in Figure 1 below demonstrates the analysis process. While this economic analysis does not attempt to demonstrate a detailed financial model of proposed activity for FFH, it does build upon the study of the food hub as a business model that has emerged in more than 225 communities throughout the country. Studies commissioned by the USDA have identified the key sales levels and margins needed to reach break-even are \$1.7M in five years, based on surveys of the food hub sector and intensive aggregate financial modeling.

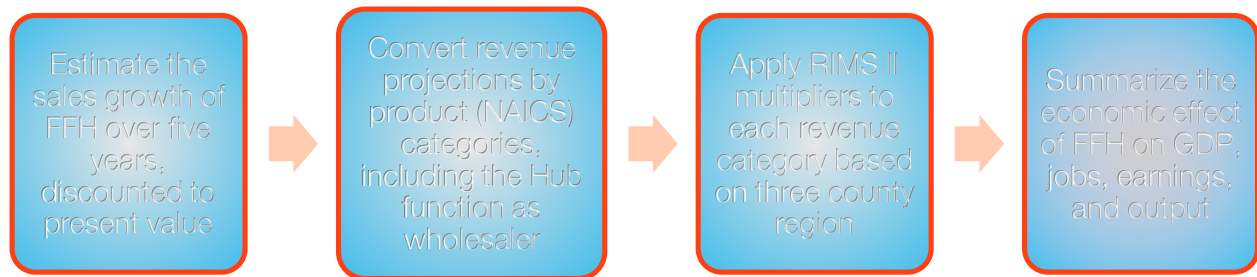


Figure 1: Steps of economic analysis process using the RIMS II tool. Measuring impact in the “Final-demand Region” of Carroll, Frederick and Washington Counties.

In this study, FFH’s projected sales growth over five years surpasses the necessary break-even hurdle as a measure of potential new agricultural activity within the three target counties. Based on precedent in other regions and Frederick County’s proximity to major Mid-Atlantic population centers, it is entirely feasible for FFH’s proposed activity to reach, if not surpass, this study’s conservative sales projections in an accelerated timeframe.

In projecting the potential regional economic impact of the Frederick Food Hub, a number of assumptions were made that align with the findings of the Supply and Demand-side business feasibility research conducted by Community FARE, as well as the larger regional economic and demographic trends. Three of the key assumptions to this study were:

- Sales output is calculated as the present value (2016) of total sales over the projected five-year break-even window.** While this does not fully capture the long-term potential impact of the Frederick Food Hub, it does present a conservative short-term impact through the early investment stage of the enterprise as it demonstrates financial viability. These sales are discounted using the projected annual inflation rate of 2.2%, derived from the Philadelphia Federal Reserve Bank’s Survey of Professional Forecasters.
- The projected sales of FFH represent whole and value-added farm food primarily sourced from the subject counties of Frederick, Washington, and Carroll. **FFH sales are assumed to be new farm activity, representing a growth in regional farm output, rather than a redirection of existing farm output.** This assumption is based on the supply-side survey which identifies acreage in the subject counties that is not currently in active production and strong farmer interest in putting this land into production to meet prospective growth in market demand facilitated by FFH. This assumption also supports Community FARE’s objective to increase the amount of regional farmland in cultivation using restorative agricultural practices.

The Frederick Food Hub could reasonably expect to reach annual sales of nearly \$2.1M by year five, with cumulative five-year sales of over \$5.4M and a present value of \$4.9M...



- All of the projected sales of FFH will be derived from the capture of a percentage of new regional food economy growth and market opportunities outside of the immediate three-county region. While the demand-side interviews focus on potential buyers that are largely located within the three subject counties, this economic impact study assumes **FFH growth, and the corresponding growth in farm activity, will have no displacement effect on existing sales channels.** Instead, sales will grow based on five-year projected population growth in the subject counties as well as the surrounding counties of Howard, Montgomery, Adams (PA), and Loudoun (VA). New regional food spending will accompany this population growth, a small percentage of which will be captured by FFH.

### Sales projections

The Frederick Food Hub will build social, technological, and physical infrastructure to aggregate and distribute products representing the full diversity of the tri-county agricultural sector. FFH will play a key marketing role, introducing wholesale transparency to the farm economy and enabling the expansion of farmland under active cultivation. This new regional food production will meet growing regional demand generated by both population expansion and growing interest in local and sustainable foods, capturing a small percentage of new market growth. The five-year sales projections presented here have been generated based on:

- The need to be a viable, financially self-sustaining enterprise, and the sector-based research that outlines key thresholds for break-even scale;
- The experience of the research team in regional aggregation and distribution activities in the same agricultural zone
- Projected population growth analysis and reasonable capture of resulting new food economy opportunities (section on population growth to follow);
- Existing food production diversity in the three counties and the potential for growth in production based on underutilized land zoned for agricultural use.

A conservative approach to sales forecasting was used, incorporating prospective market segment ratios based on similar asset-driven models of regional aggregation and distribution. **As a result, the Frederick Food Hub could reasonably expect to reach sales of nearly \$2.1M by year five, with cumulative five-year sales of over \$5.4M.** The present value (2016) of five-years of sales activity is \$4,976,359 based on a discount (projected inflation) rate of 2.2%.

The sales projections presented in Figure 3 below largely represent wholesale market opportunities, delineated by customer segment. However, the model also includes projections for a small amount of direct-to-consumer sales, the breakdown of which is shown in Figure 2. The two categories are separated programmatically because of significant differences in their potential for markup, and thus revenue for the food hub. This markup difference is accounted for in the “Wholesale Trade” NAICS revenue category, presented later in this report.

Sales by Category			
		Total Sales	% of Sales

<b>Wholesale</b>		\$ 4,975,859	92%
<b>Direct-to-Consumer</b>		\$ 427,275	8%
<b>Total Sales</b>		\$ 5,403,134	100%

Figure 2: FFH five-year sales and percent-of-sales projections by markup category

Frederick Food Hub Estimated Sales Growth						
Sales by category	Year 1	Year 2	Year 3	Year 4	Year 5	
Colleges & Universities	\$ 25,000	\$ 75,000	\$ 225,000	\$ 270,000	\$ 324,000	
Distributors	\$ 24,000	\$ 48,000	\$ 72,000	\$ 96,000	\$ 120,000	
Eldercare	\$ 5,000	\$ 6,500	\$ 8,450	\$ 10,985	\$ 14,281	
Direct-to-Consumer	\$ 32,400	\$ 48,600	\$ 72,900	\$ 109,350	\$ 164,025	
Hospitals	\$ 22,500	\$ 45,000	\$ 67,500	\$ 101,250	\$ 151,875	
Local Farm Box Programs	\$ 24,000	\$ 48,000	\$ 72,000	\$ 96,000	\$ 120,000	
Private Schools	\$ 44,500	\$ 75,650	\$ 113,475	\$ 170,213	\$ 255,319	
Public Schools	\$ 39,000	\$ 66,300	\$ 112,710	\$ 191,607	\$ 249,089	
Restaurants	\$ 90,000	\$ 157,500	\$ 196,875	\$ 295,313	\$ 442,969	
Retailers	\$ 13,000	\$ 26,000	\$ 52,000	\$ 104,000	\$ 208,000	
<b>Total</b>	<b>\$ 319,400</b>	<b>\$ 596,550</b>	<b>\$ 992,910</b>	<b>\$ 1,444,717</b>	<b>\$ 2,049,557</b>	
<b>Growth</b>		<b>87%</b>	<b>66%</b>	<b>46%</b>	<b>42%</b>	
<b>Cumulative Sales over 5 years:</b>				<b>\$ 5,403,134</b>		
<b>2016 Present Value of Sales Volume:</b>				<b>\$ 4,976,359</b>		
<b>Discount rate= 2.2%</b>						

Figure 3: FFH five-year sales projections by market category, calculated in both 2016 and real-time values . The percentage of year-over-year growth is anticipated to level-off over time. Sales projections are conservative given the anticipated new market growth and yet well exceed the USDA's \$1.7M break-even five-year model for food hub viability.

## Population Growth Projections

The need to justify farmland preservation and cultivation has never been more pressing. While new housing development experienced a lull beginning with the recession in 2007, regional population is projected to grow significantly in the next five years. In fact, forecasted population growth in the counties surrounding and including Frederick (Washington, Carroll, Montgomery, Howard, Loudoun (VA), and Adams (PA)) between 2015 and 2020 is 6%, far surpassing projected growth in the state of Maryland (3.6%) over the same time frame. This population growth clearly presents opportunities for an expanded food economy while simultaneously threatening the farmland needed to meet this growing demand, suggesting the urgency of need for the proposed intervention.

The projected growth in the regional population of 142,284 between 2015 and 2020 will generate increased annual regional food spending per year of \$375,743,587 by 2020, based on average annual per person spending of nearly \$2,641 as cited by the Bureau of Labor Statistics in 2013. FFH 2020 annual sales projections of just over \$2M equate to half of 1% of anticipated new food spending (.0054), which is an achievable, if not conservative estimate of new market capture.

As noted above, projecting that the sales activities of the Frederick Food Hub capture demand from population growth and from outside the region is an important assumption in using the Regional Input-Output Modeling System (RIMS II) to demonstrate potential economic impact. This supports the assumption that the proposed output of the regional farm activities for FFH can happen without a cannibalization (or substitution) of existing food sector activity.

Forecasted Regional Population Growth				
Counties	2015 Population	2020 Pop.	Pop. Growth	Percent Change
Washington	151,200	160,300	9,100	6.02%
Frederick	245,600	265,650	20,050	8.16%
Carroll	168,550	175,900	7,350	4.36%
Howard	309,050	332,250	23,200	7.51%
Montgomery	1,036,000	1,067,000	31,000	2.99%
Adams (PA)	101,423	103,993	2,570	2.53%
Loudoun (VA)	363,524	412,538	49,014	13.48%
<b>TOTAL</b>	<b>2,375,347</b>	<b>2,517,631</b>	<b>142,284</b>	<b>5.99%</b>
<b>Regional Forecasted Growth</b>		<b>142,284</b>	<b>5.99%</b>	
<b>MD State Forecasted Growth</b>		<b>214,370</b>	<b>3.60%</b>	

Figure 4: Frederick and surrounding counties' regional population growth estimates from 2015 to 2020

## Regional Economic Impact

In an effort to demonstrate the importance of regional agricultural preservation and investment, the research team used the Figure 3 sales projections to conduct a regional economic impact analysis. This analysis incorporates the Regional Input-Output Modeling System (RIMS II), developed by the Bureau of Economic Analysis of the US Department of Commerce. RIMS II is a regional economic model used to objectively assess the potential economic impacts of various projects. The idea behind the results of RIMS II analysis is that an initial change in economic activity (called the final demand change) results in other rounds of spending throughout the economy in supporting industries. The model produces multipliers that are used on the final demand change to estimate the total impacts of a project on a region. The impacts are expressed in terms of output (sales), value added (gross domestic product), earnings, or employment (full and part-time jobs) on all industries and on individual industries in the local economy. (Paraphrased from RIMS II user guide).

In this case, we are presenting sales outputs generated from the aggregation and distribution of farm food grown in Frederick, Washington and Carroll Counties, Maryland (the final demand region). We assume that the product grown for the Frederick Food Hub is new farm activity, representing a growth in the regional farm economy, and that the market demand being met by the hub through various wholesale and direct-to-consumer segments represents new food sector demand. This growth in demand is being generated by significant forecasted population growth and the food consumption needs of the region's new residents, along with the growing demand for local food in communities outside of the immediate region.

RIMS II represents a backward-linkage approach to estimating potential economic impact. As such, for projected growth in outputs (new farm food production), the model captures the additional economic impact from the resulting growth of demand for inputs such as seeds, tractors, greenhouses, labor, and organic nutrients to support the output. RIMS II is not a forward-linkage model, which would capture the increased economic activity of industries that would source from the Frederick Food Hub, such as restaurants, hospitals and retail stores.

The model assumes that any production inputs will be purchased from the three-county region if produced within the region. This assumption, though a simplification of the situation, is a means to project the full potential for regional economic growth. The handful of products that the FFH will likely sell which are not currently being produced in the three-county region and will have to be sought from nearby counties, are not included in the backward-linking economic impact for the region.

In order to utilize the RIMS II model, the research team needed to separate the sales projections by sector or NAICS Codes, as presented in Figure 5 below. NAICS is the North American Industry Classification System, the standard used by the Federal government to classify business activity. It is also the system by which specific business activity multipliers are organized in RIMS II (the final demand industries), which necessitated the segmentation of FFH sales projections by NAICS Codes. Proportional sales data by product type was captured from The Common Market Mid-Atlantic for 2015 as a regional example of the product diversity that the Frederick Food Hub could represent. This was then applied to the five-year sales projections presented in Figure 2, separated by wholesale and direct-to-consumer activities, and organized by NAICS Codes.

<b>Final Demand Industries</b>	
<b>NAICS #</b>	<b>Type of Agricultural or Food Processing Activity</b>
<b>1111C0</b>	Oilseed and grain farming
<b>111200</b>	Vegetable and melon farming
<b>111300</b>	Fruit and tree nut farming
<b>112A00</b>	Animal production, except cattle and poultry and eggs
<b>112300</b>	Poultry and egg production
<b>311420</b>	Fruit and vegetable canning, pickling, and drying
<b>31151A</b>	Fluid milk and butter manufacturing
<b>311513</b>	Cheese manufacturing
<b>31161A</b>	Animal (except poultry) slaughtering, rendering, and processing
<b>311810</b>	Bread and bakery product manufacturing
<b>312110</b>	Soft drink and ice manufacturing
<b>420000</b>	Wholesale trade

Figure 5: The NAICS Codes corresponding to existing farm production and processing in the focus counties of Frederick, Washington, and Carroll, Maryland.

In preparing sales data by NAICS activity for the application of RIMS II multipliers, the distinction between wholesale sales and direct-to-consumer sales becomes important in

projecting the regional impact of the Frederick Food Hub itself. This study analyses the farm product purchasing cost to FFH, then applies separate markups of 33% average to wholesale sales and 90% to the direct-to-consumer sales which generates the revenue of the food hub or “Wholesale Trade.” This pooled markup and revenue is used to calculate the regional economic impact of FFH’s internal operations

Once sales projections were classified by NAICS code, the five-year projections were discounted to the present value (2016) using a discount rate of 2.2% (the projected inflation). RIMS II publishes two sets of multipliers for economic analysis, one which does not account for household spending, called Type I, and one which does account for household spending, called Type II. Household spending is the economic impact of additional consumer spending that would come from the job and salary growth related to FFH. The use of Type II multipliers can inflate economic projections if applied to a region much larger than the actual region where workers spend their earnings. Since this analysis uses a relatively confined tri-county region, Type II RIMS multipliers were chosen with the assumption that most workers who are affected by the FFH live and spend their earnings within the three counties of Frederick, Carroll and Washington.

## Presentation of Economic Impact, RIMMS II-Type II

Based on the five-year aggregate sales data projections of FFH, totaling \$4,976,359 in final demand change after discounting to the present dollar value (2016), the Frederick Food Hub holds the potential for the following regional economic impacts based on the application of RIMS II multipliers:

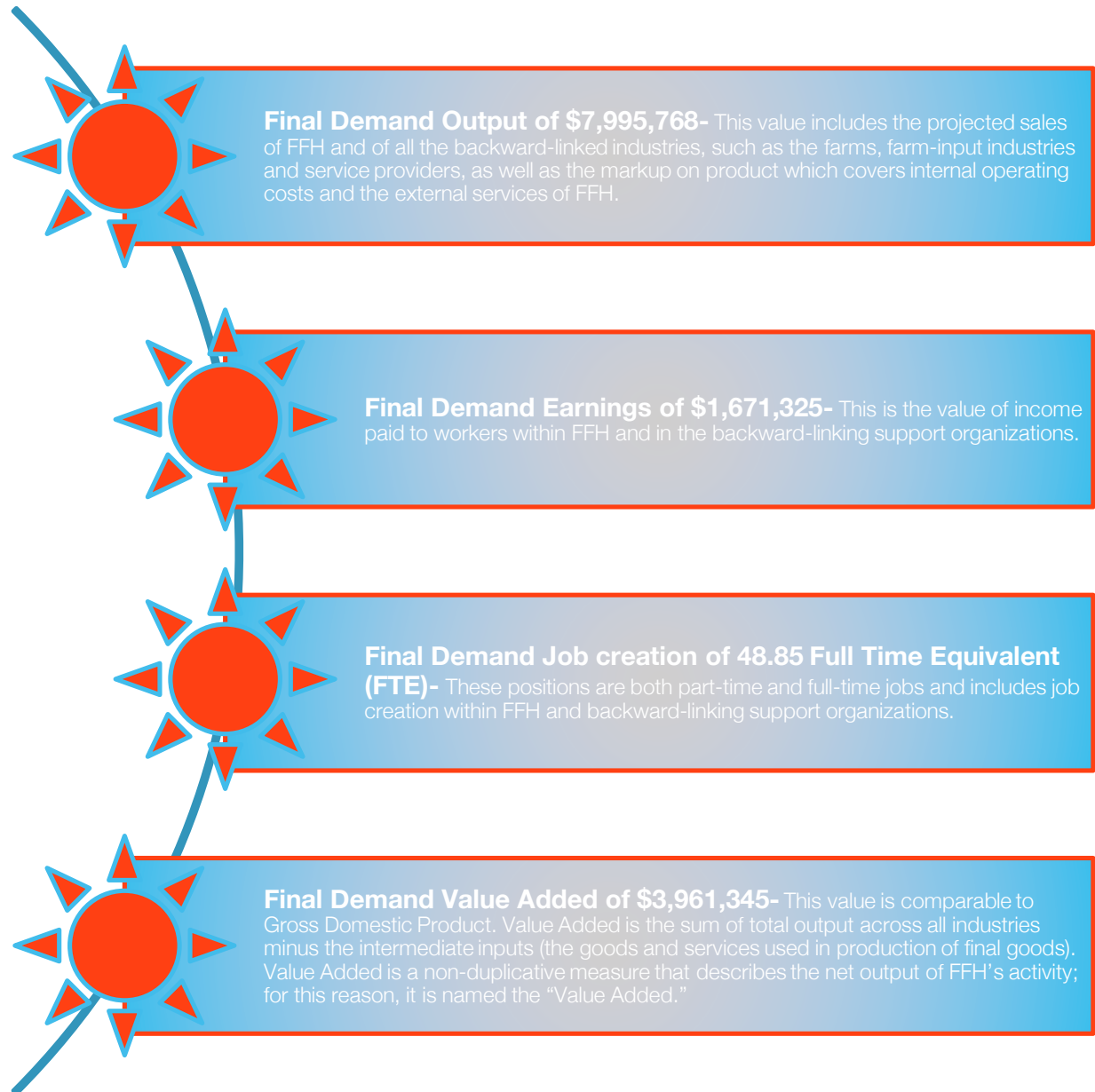


Figure 6: Regional economic impact of the Frederick Food Hub over five years

### **Comparative Economic Impact Analysis—An IMPLAN Based Study**

A USDA funded study by Jablonski, Schmidt, and Kay was conducted to measure and test the economic impacts of a food hub model, choosing to analyze the operations of Regional Access, a food hub based in Ithaca, NY. The primary objective of the study was to demonstrate a replicable methodology by which to evaluate the economic impacts of a food hubs' goods and services on local economies and participating farms. The study's process included the development of food hub specific multipliers based on the assumption that IMPLAN, RIMS II, and other Input-Output models underestimate the true impact of regional food systems enterprises compared with their conventional counterparts. This proves to be true because food hubs are enterprises focused on regional economies and therefore have a greater propensity to spend their dollars locally for inputs and services.

The secondary objective was to better understand the extent to which food hubs increase overall demand for and consumption of local food products. The study surveyed customers of Regional Access in an attempt to quantify the net effect on the economy, incorporating an "opportunity cost" adjustment applied to both IMPLAN and study-derived multipliers. In this case, the opportunity cost accounted for the potential displacement effect that increased purchases of locally grown foods would have on other purchases by customers of Regional Access, rather than utilizing the assumption that Regional Access would capture new market growth.

MIG, Inc. (Formerly "Minnesota IMPLAN Group, Inc.") is the corporation that is responsible for the production of IMPLAN (IMPact analysis for PLANning) data and software. Using classic input-output analysis in combination with regional specific Social Accounting Matrices and Multiplier Models, IMPLAN provides a highly accurate and adaptable model for its users. The IMPLAN database contains county, state, zip code, and federal economic statistics which are specialized by region, not estimated from national averages and can be used to measure the effect on a regional or local economy of a given change or event in the economy's activity.

### **Food Hub Model Comparison**

As noted above, Jablonski, Schmidt, and Kay (JSK Study) offer analysis of the economic impact of a food hub model in New York State using IMPLAN while collecting customer and vender specific procurement and spending patterns to construct alternative regionalized food hub centric multipliers and opportunity cost adjustments. The JSK study offers a varied set of multipliers which allow for a fairly robust comparative analysis of the application of RIMS II multipliers and numerous assumptions made by the Frederick Food Hub study team. **The following presents final numerical comparison of the Input-Output models.**

- FFH RIMS II compared to standard IMPLAN
  - Application of RIMS II multipliers on the FFH Model, using the assumptions defined in this report, yields Final Demand Output (FDO) of \$7,995,768 and total job creation of 48.85. Comparatively, this projection is 4.8% lower for FDO and 1.7% higher in job creation than the projections from using standard, unadjusted IMPLAN multipliers.
- FFH RIMS II compared to JSK Food Hub model
  - FFH RIMS II results are 8.8% lower for FDO and 12.9% lower for jobs than the results from using the unadjusted (for opportunity cost), JSK Model 2 Food Hub multipliers.



- FFH RIMS II compared to Opportunity Cost adjusted IMPLAN and Food Hub models
  - Adjusting IMPLAN and Food Hub multipliers for the JSK calculated Opportunity Cost, FFH RIMS II results are 6.5% higher for FDO and 12.3% higher for jobs than the adjusted IMPLAN results; and 2.5% higher for FDO and 2.3% lower for jobs than the adjusted JSK Food Hub Model.
- FFH RIMS II vs. average of JSK models
  - Because the results of the FFH RIMS II analysis vary within a range of +12.3%/-12.9% compared to the JSK models, looking at the average of the JSK models provides an overall comparison. **When compared to the average, there is almost no measurable difference between the JSK Study multipliers and the FFH RIMS II analysis (1.14% lower for FDO and 0.33% lower for jobs).**

Comparison of FFH RIMS II and JSK IMPLAN, Food Hub Models						
Multiplier	FFH RIMS II (this study)	JSK Model 1- IMPLAN		JSK Model 2 (Food Hub)		Average of JSK Models
			Op Cost Adjusted		Op Cost Adjusted	
<b>Combined Direct, Indirect and induced Output Multiplier</b>	1.607	1.684	1.502	1.748	1.566	1.625
<b>Combined Direct, Indirect and induced Employment Multiplier</b>	9.816	9.652	8.613	11.085	10.046	9.849
<b>Final Demand Output</b>	\$7,995,768	\$8,380,188	\$7,474,491	\$8,698,675	\$7,792,978	\$8,086,583
<b>% change from RIMSII</b>	x	4.81%	-6.52%	8.79%	-2.54%	1.14%
<b>Final Demand Employment (jobs)</b>	48.85	48.03	42.86	55.16	49.99	49.01
<b>% change from RIMSII</b>	x	-1.67%	-12.26%	12.92%	2.34%	0.33%

Figure 7: Comparative analysis of FFH's potential economic impact using the RIMS II model (as this study demonstrates) versus four IMPLAN-derived models outlined and developed by Jablonski, Schmidt, and Kay in a USDA-funded food hub study.

## A Deeper Look at Opportunity Cost

Whenever possible, any final demand change used with RIMS II or IMPLAN multipliers to calculate economic impacts should represent a net effect on goods and services for affected industry purchases. Therefore, if the growth or launch of a business causes a corresponding decline for a competitor in the same industry, economic impact analysis should measure the difference between the new sales and the lost sales, or the “net” growth in sales for the industry. In this study, the research team makes the argument that the projected growth of the Frederick Food Hub sales of locally sourced farm food will have a negligible effect on the sales of competitors within the final-demand (study) region of Carroll, Frederick and Washington Counties. We therefore do not adjust our analysis for substitution, cannibalization, or opportunity cost. This is justified through the following assumptions:

- The majority of sales could happen outside of the study region to customers that farmers in the study region do not have direct access to;
- A priority for the Frederick Food Hub is to support active farming on agricultural lands not currently under cultivation, representing a growth in the farm sector;
- Projected population growth in the counties surrounding the study area will generate significant growth in the market for food. **FFH market capture for projected new regional food spend equates to less than one half of one percent.** This virtually negates the potential for substitution for sales that happen within the study area and renders any impact insignificant.

Jablonski, Schmidt, and Kay present analysis claiming that the sales of Regional Access represent a corresponding replacement of other distributors’ sales equating to 11% of their customers’ procurement. They calculate this by surveying a sample of Regional Access’s (RA) customers to determine the extent to which purchases from RA offset purchases from others, which they present as the “opportunity cost.” The study team for the Frederick Food Hub economic impact analysis does not think that this survey and corresponding estimate of opportunity cost is an accurate representation of the food hub industry as a whole. The primary point of distinction between RA and many food hubs is the relatively low percentage of their sales derived from locally sourced foods. Based on an analysis of RA expenditures, the JSK Study reveals that the majority of RA’s 3,400 products are comprised of non-local manufactured foods. While insufficient data is presented for deeper analysis, manufactured food represents approximately 44% of RA’s total organizational expenditures with roughly 16% of that total purchased from local suppliers. Farm products make up approximately 18% of total organizational expenditures, with roughly 88% of that sourced from local farms.

Cursory analysis of the above data suggests that 63% of Regional Access’s product line is made up of non-local goods-95% of which are non-local manufactured foods, including branded and packaged goods from around the world (RA website features coconut water from Thailand, for example). Less than 26% of RA’s sales come from local farm-sourced foods. JSK methodology for determining opportunity cost was based on a survey which determined that “49.4 percent of RA business customers reduced their purchases from other distributors because of purchases made from RA; the average dollar-volume decrease was 23.1 percent” yielding a negative shock of \$0.11 for every \$1.00 growth of RA. Based on the product mix and low percentage of local farm food represented, we do not feel that this model of “opportunity cost” offers a fair comparison for the proposed program of the Frederick Food Hub.

Appendix

Multipliers by NAICS Code					
NAICS #	Type of Agricultural or Food Processing Activity	Output	Earnings	Employment	Value-added
1111C0	Oilseed and grain farming	1.7779	0.3175	9.0458	0.5603
111200	Vegetable and melon farming	1.4274	0.3496	13.8678	0.9175
111300	Fruit and tree nut farming	1.4909	0.4219	18.0937	0.959
112A00	Animal production, except cattle and poultry and eggs	1.3442	0.2674	8.5629	0.8893
112300	Poultry and egg production	1.5239	0.2752	7.4459	0.5237
311420	Fruit and vegetable canning, pickling, and drying	1.5085	0.2065	4.6532	0.4461
31151A	Fluid milk and butter manufacturing	2.2294	0.338	8.7888	0.7244
311513	Cheese manufacturing	2.4826	0.3769	10.1753	0.7366
31161A	Animal (except poultry) slaughtering, rendering, and processing	1.5837	0.2123	5.5267	0.4466
311810	Bread and bakery product manufacturing	1.521	0.2566	6.4081	0.6301
312110	Soft drink and ice manufacturing	1.3624	0.1839	3.8232	0.4332
420000	Wholesale trade	1.506	0.3618	6.4932	0.9822

Figure 8: This chart outlines the specific RIMS II-Type II multipliers for each economic impact within the subject counties, delineated by NAICS Codes.

The above Output, Earnings, Employment, and Value-Added multipliers are applied to the discounted Final Demand Change figures (Product Cost by NAICS Code and Wholesale Trade) and then summed to reach totals by category.

**Example: For Fruit and Tree Nut Farming** (NAICS Code 111300) within the Counties of Frederick, Carroll and Washington, we project sales at a level where the discounted value of the product cost over five years is \$821,063. This number is then multiplied by 1.4909 to yield a Final Demand Output of \$1,224,123 ( $\$821,063 \times 1.4909$ ). The same product cost of sales value of \$821,063 is multiplied times .4219 for the Final Demand Earnings value of \$346,407; times 18.0937 for the Final Demand Employment value of 14.86 jobs created; and times 0.959 for the Final Demand Value-Added (GDP Contribution) of \$787,400.

This process is repeated for each NAICS classification to reach an aggregate economic impact for the Frederick Food Hub based on its operating model and the industries it intersects.

NAICS Category	Present Value (2016) of 5 years of sales	Final Demand Output	Final Demand Earnings	Final Demand Employment	Final Demand Value Added
<b>Oilseed and grain farming</b>	\$22,295	\$39,638	\$7,079	0.20	\$12,492
<b>Vegetable and melon farming</b>	\$644,337	\$919,727	\$225,260	8.94	\$591,179
<b>Fruit and tree nut farming</b>	\$821,063	\$1,224,123	\$346,407	14.86	\$787,400
<b>Animal production, except cattle and poultry and eggs</b>	\$92,643	\$124,530	\$24,773	0.79	\$82,387
<b>Poultry and egg production</b>	\$950,453	\$1,448,396	\$261,565	7.08	\$497,752
<b>Fruit and vegetable canning, pickling, and drying</b>	\$223,535	\$337,203	\$46,160	1.04	\$99,719
<b>Fluid milk and butter manufacturing</b>	\$574,079	\$1,279,851	\$194,039	5.05	\$415,863
<b>Cheese manufacturing</b>	\$154,164	\$382,728	\$58,104	1.57	\$113,557
<b>Animal (except poultry) slaughtering, rendering, and processing</b>	\$72,118	\$114,213	\$15,311	0.40	\$32,208
<b>Bread and bakery product manufacturing</b>	\$18,657	\$28,377	\$4,787	0.12	\$11,756
<b>Soft drink and ice manufacturing</b>	\$111,129	\$151,402	\$20,437	0.42	\$48,141
<b>Wholesale trade</b>	\$1,291,887	\$1,945,581	\$467,405	8.39	\$1,268,891
<b>Totals</b>	<b>\$4,976,359</b>	<b>\$7,995,768</b>	<b>\$1,671,325</b>	<b>48.85</b>	<b>\$3,961,345</b>

Figure 9: This table organizes the present value (2016) product cost and FFH operational revenue (represented by Wholesale Trade) into NAICS Codes and applies the revenues to RIMS II multipliers to present potential regional economic impacts on final demand output, salary earnings, full and part-time employment numbers, and GDP (or value added).