

Improving Fresh Farm Food Access for Working Poor and Low-income Communities

The Task Force Study on the Implementation of a Hub and Spoke Program in Southern Maryland

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Executive Summary

Many Maryland families and individuals have insufficient access to food, especially fresh, nutritious produce. As a result, Maryland and much of the nation are experiencing a serious health crisis resulting from diet-related disorders, obesity, and malnourishment. The recent economic downturn has increased the need substantially among those living in poverty, as well as the “working poor,” who may have a single or double income but still cannot afford healthy fresh food. The primary goal of many anti-hunger organizations is to provide food for those in need, often supplying much needed calories but not necessarily food that is nutritious.

At the same time, Maryland table-crop farmers often have surplus vegetables, fruit, or products that are slightly blemished and therefore not marketable at full retail value. Because there is little or no compensation for the farmer’s cost to harvest, package and transport this food, it is often left in the fields or fed to livestock. This food is perfectly edible and if it were available to the food-insecure, could both benefit the farmer and the community in need.

To address this issue, the Maryland legislature created the Hub and Spoke Task Force to identify opportunities for increasing donations and improving distribution of fresh, local produce. The Task Force recommends creating a pilot distribution system in Southern Maryland whereby fresh produce is donated to a “Hub,” repackaged, and then sent out to “Spokes” for dispersal into the community. Donated food can also bypass the Hub and be donated directly to authorized Spokes.

Because local food donations are not financially sustainable for farmers, the current volume of donations is relatively low. Therefore, the Task Force recommends creating a state tax law, similar to that found in other states, whereby farmers receive a state tax credit equal to 50% of the wholesale value of the produce donated (or 75% if organic).

The Task Force recommends a three-year pilot Hub and Spoke, with annual evaluations and modifications to gauge and ensure the success of the project.

Improving Fresh Farm Food Access for Working Poor and Low-income Communities

The Hub and Spoke Task Force Summary of Recommendations

The Hub and Spoke Task Force recommends the program be a three-year pilot project, with yearly assessments, evaluations and reports to gauge the success of the project. The legislation calls for the Hub and Spoke to operate within the three counties of Calvert, Charles and St. Mary's. The Task force recommends the possible inclusion of all or some of Prince George's and Anne Arundel counties.

Distribution Recommendations: The Hub will be located at and run by Farming 4 Hunger, Benedict . Prince Frederick (Hub located at Serenity Farm, Benedict, Charles County). Bernie Fowler Jr., Director of Farming 4 Hunger, is agreeable to hosting the Hub.

Food drops by the Hub to the Spokes will occur on a regularly scheduled basis, which will be made publicly available on websites and within the community. While the Task Force will continue to identify Spoke sites, Farming for Hunger has already identified 13 Spokes in 2014 based on their location, volunteer availability, need, and outreach capacity.

Farmers may also have the option of delivering food directly to an authorized Spoke.

Economic Incentive Recommendations: The Task Force recommends a 50% tax credit for eligible farm food donations from conventional farms and a 75% tax credit of for certified organic farms. In either case, the value of the donated product will be based on the conventional wholesale prices as set weekly by the MDA (or another agricultural service organization) based on USDA/AMS reports of Maryland products sold at Maryland markets, such as the Baltimore Terminal Market (or as geographically close as possible if Maryland data is not available). The weekly value reports for the Hub and Spoke should be posted regularly online.

The credit will be available for eligible fresh food donations as of January 1st, 2014 and should be capped at \$5,000 per farm per year, and \$1 million per year for the entire program. Carryover should be five (5) years from the donation date, regardless of the lifespan of the tax incentive program. In lieu of accepting a tax credit, a farm food donor may be offered the option to donate their tax credit to a non-profit directly involved with providing food to food-insecure populations.

Farm businesses must be located in Calvert, Charles, or St. Mary's counties to claim the credit; however, the Task Force recommends enabling the Comptroller to extend the credit to farmers in Prince George's and Anne Arundel if the Southern Maryland Agricultural Development Commission (SMADC) votes to include those counties. Any locally grown fresh produce (vegetable or fruit) is eligible. Regardless of how the price is set, to receive the tax credit, farmers must donate to the Hub or Spokes which are authorized to accept the produce directly (includes identifying, weighing, and sorting/discarding) and provide a receipt for the weight of edible product donated.

The Hub and Spoke Task Force will assess, evaluate and report yearly to determine how much unclaimed credit remains at the end of the year and whether the farm donation credit is actually incentivizing farmers to donate food.

The Task Force also recommends receiving an annual report (on or before July 1st) from the

Comptroller's office regarding state expenditures on this tax credit. Additionally, to ensure that receipts for credits do not exceed the state cap, farm businesses should be able to log their donations into an online system, thereby allowing for up-to-date reporting of the amount of credit expected to be used. Should the online credit log indicate the state cap could be exceeded, the Task Force should communicate the end of the tax credit for the year to farmers.

Labor Incentive Recommendations: The Hub and Spoke should continue to investigate opportunities to utilize the correctional workforce through the Department of Corrections (DOC) .

Infrastructure Recommendations: At a minimum, the Hub and Spoke program should invest in a refrigerated box truck, a refrigerated trailer, a truck driver, certified scales for pantries, and a Food Distribution & Outreach Coordinator in Year 1. Additional trucks and staff may be required in Years 2-3. Moreover, the Hub and Spoke should work with local transportation offices to improve transportation to the Spokes. SMADC will continue to staff the Task Force and program.

Education/Outreach Recommendations: To establish and monitor community data and education outreach, the Hub and Spoke Program should work with the University of Maryland Extension and other partners, such as local health offices, Health Improvement Coalitions, local Chronic Disease Teams, and schools.

Evaluation Recommendations: For the purpose of evaluating the Hub and Spoke program during its three pilot years, the Task Force recommends the Task Force continue for one year and establish an Advisory Council. The Advisory Council will include current Hub and Spoke Task Force Members and will look to include representation in subcommittees from Anne Arundel and Prince George's counties, including social ministries and farmers. The Southern Maryland Agricultural Development Commission (SMADC) will staff the Advisory Council and assist with evaluation.

The Hub and Spoke project evaluation will use a Logic Model, which includes intended outcomes and measuring outputs. Because so many Hub and Spoke outcomes are long-term, the Hub and Spoke project will need to focus on process measures to measure success.

As the pilot advances, the Program should look to work with the University of Maryland Extension and other partners, such as local health offices, Health Improvement Coalitions, local Chronic Disease Teams, schools to gather data and assess measures.

Improving Fresh Farm Food Access for Working Poor and Low-income Communities The Task Force Study on the Implementation of a Hub and Spoke Program in Southern Maryland

Purpose: “To Study the Implementation of a Hub and Spoke Program in the Southern Maryland Region, including Charles County, Calvert County, and St. Mary’s County, to provide the low-income, working poor, and unemployed populations of that region with fresh farm products.”

In May of 2013, the Maryland Legislature signed SB 586/HB 1019: *The Task Force to Study the Implementation of a Hub and Spoke Program in the Southern Maryland Region*, otherwise known as the “Hub and Spoke Task Force.” The purpose of the Hub and Spoke Task Force is to develop a model within Southern Maryland (Calvert, Charles, and St. Mary’s) to improve fresh farm food access for working poor and low-income communities. This model could serve as a pilot for other communities in the state.

The Task Force recommends that all or part of Prince George’s and Anne Arundel County be incorporated into the Hub and Spoke in the initial phases.

On or before December 31, 2013, the Task Force shall report its research and recommendations to the Maryland General Assembly with regard to:

1. the nutritional needs of various Southern Maryland communities (low-income, working poor, and unemployed);
2. the infrastructure necessary to meet those needs through fresh food distribution;
3. fresh food distribution opportunities for those in need;
4. Hub and Spoke operation and management recommendations;
5. education and outreach effort recommendations; and
6. the creation of a tax incentive for local farmers to donate freshly grown food.

During the project deliberations, the Task Force added two additional components:

7. Labor Force
8. Evaluation

The Hub and Spoke is a coordination of efforts by the Hub and Spoke Task Force Members, as well as a multitude of individuals, businesses, and community organizations. The following people contributed to formulating Hub and Spoke models and plans and have pledged to continue working with the Hub and Spoke Task Force as we address coordination locally and beyond.

Task Force Members:

Bernie Fowler Jr.	Farming 4 Hunger	President
Earl “Buddy” Hance	Maryland Dept. of Agriculture	Secretary of Agriculture
Sally Jameson	Maryland House	Delegate
Reginald Kearny	So. MD Ministers Alliance	Member
Jerome Klasmeier	Maryland Comptroller’s Office	Assistant Comptroller
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Mindy Waite	So. MD Ag. Dev. Commission	Special Programs & Dev. Manager

“Eating cheap I can do, eating healthy I cannot.”

Mark Schumann, *Faces of Homelessness Speakers' Bureau, Word on the Street Editor, and former homeless man in Maryland. 2013.*

Assessing the Needs

Food Insecurity and Self-Sufficiency: Between 2007 and 2011, Southern Maryland experienced a significant increase in the number of food insecure families and families living in poverty (Figure A1).¹ Food insecurity is defined as a household having limited or uncertain access to adequate food.^A By 2011, between as much as 16% of the Southern Maryland population was food insecure, and between 6-9% of the population were living below the poverty line.^{1,2} As in many other rural areas, food insecurity in Southern Maryland is compounded by the cost of food and the lack of an efficient food distribution system due to low population densities with limited public transportation, lack of nearby fresh food grocers, and/or developed town areas with high income inequalities.

Food insecurity also affects the working poor, those people who may have a one or two income family and are not eligible for federal food benefits such as SNAP or WIC but still cannot afford fresh, healthy food. Up to 66% of families in Southern Maryland have incomes above SNAP eligibility levels (Figure A2),² but many are still not able to “eat healthy.”

One reason for such high food insecurity among the working poor is the high cost of living in Maryland. The Self-Sufficiency Standard is a measure that indicates the income level at which a household can make ends meet without public or private assistance.³ Southern Maryland counties have some of the highest Self-Sufficiency Standards in the state. For example, in 2011, a family in St. Mary's County with two adults and two children would have to earn at least \$63,000 (\$15/hour) to reach Self-Sufficiency. Many household incomes are lower than the Self-Sufficiency Standard, yet higher than the low levels necessary for government support, such as Supplemental Nutrition Assistance Program (SNAP)^B (Figure A3). As such, many families fall into the gap above government assistance eligibility standards and below Self-Sufficiency Standards. In 2012, over 18% of the population in St. Mary's County made between \$9.94-\$13.65/hour (Figure A4)⁴ placing them into the “working poor” gap between SNAP eligibility and Self-Sufficiency. Overall, 15% of Southern Maryland families (2 adults, 2 children) fall into this gap.⁵ What this means is that many Maryland families may not be able to afford necessities (such as food) but do not qualify for government assistance, thereby resulting in food insecurity and a lack of healthy food choices.

This issue has been compounded by generally decreasing incomes, less secure employment, and rising food costs. By way of example, Figure A5 shows the drastic decline in median household income and consequent unemployment rate in the United States from 2000 to 2013⁶, and Figure A6 shows the dramatic increase in the cost of an average US Thanksgiving Dinner from 1986 to 2013.⁷

^A Food insecurity is defined as “a household-level economic and social condition of limited or uncertain access to adequate food,” ranging from “reduced quality, variety, or desirability of diet [with] little or no indication of reduced food intake” to “multiple indications of disrupted eating patterns and reduced food intake” (USDA).

^B The household income eligibility for SNAP is \$22,350 for a family of four or \$5.36/hour per adult.

Health Risks: Researchers have identified a link between food insecurity and the consumption of cheap, calorie-dense foods resulting in diet-related diseases such as heart disease and diabetes.⁸ In Maryland, the demographics of food insecurity and its consequences are evident. Even though the USDA recommends eating 4-5 servings of fruits and vegetables every day, almost 40% of Maryland adults eat fewer than 3 fruits/vegetables per day (Figure A7),⁹ and Southern Maryland counties typically have higher rates of obesity, heart disease, and diabetes than much of the country.^{10,11}

Re-Defining Food Deserts for Rural Areas: The national standards for a Food Desert do not include areas in Southern Maryland that are clearly in need and are in crisis. For example, the rural community of Nanjemoy, MD experiences one of the highest levels of diet-related disorders in the state, such as early on-set diabetes and heart disease. Many families live over 10 miles from the nearest fresh food retailer, thereby reducing their access to healthy foods. Even city communities can have food access issues; Lexington Park, MD is considered a food desert because so many households lack transportation options to stores or markets.^{12,13}

In order to assess the needs of the rural communities in Southern Maryland, a metric other than the national “food desert” is needed. Correlating the number of students receiving Free and Reduced Meals (FARM) at their schools with household income and health indicators highlights these areas of need (Figures A7-A10).

Consistent with an increase in poverty, the number of Southern Maryland students receiving Free and Reduced Meals (FARM) at their schools has increased significantly since 2007 (Figure A11).¹⁴ There is also a correlation between low income, poor nutrition, and poor performance in schools. Specifically, studies showed that children whose families had long-term food insecurity were more likely to miss or be late for school, progressed more slowly in mathematics and reading, and had higher Body Mass Indexes than children whose families were food-secure.¹⁵ Conversely, participation in school breakfast programs decreased food insecurity and improved academic performance and psychosocial functioning.¹⁶

Summary: Overall, proper nutrition is critical to community health and development, and a regional aggregation/distribution center such as a Food Hub/Hub and Spoke could help address the nutritional and health needs of Southern Maryland communities by providing fresh food access to the region. Specifically, the purpose of the Hub and Spoke will be to increase access to fresh, highly perishable produce from local farmers for food-insecure populations in the counties of Southern Maryland with the goal of increasing health and academic outcomes. This will be done by creating a “Hub and Spoke” distribution system, whereby donated food is aggregated and distributed out to food-insecure communities.

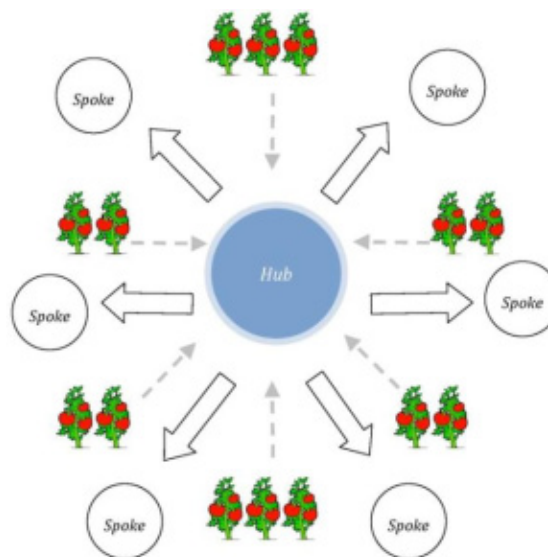
Hub and Spoke Distribution Models

The concept of this Hub and Spoke Model consists of transporting fresh, locally grown food from its source (farm or garden) to a central site or “Hub,” where it is distributed to sites, “Spokes,” convenient to the hunger community within the region.

The Task Force recommends two means to achieve this:

Hub to Spoke Model: Distribution from the farm or garden to a central site (Hub)

Locally produced food is transported to a central site or “Hub,” such as Farming 4 Hunger (a local anti-hunger non-profit), which then distributes the food to Spokes, where it is provided directly to the community. Donors may either bring food to the Hub, or the Hub may send a truck out to pick up large donations. The Hub will ensure the food/farm products delivered are of edible quality and will issue a receipt to the farmer or gardener for the weight of edible food received. The farmer can then use the receipt for a tax credit for the value of the food donated, based on weight.



At the Hub, the food is weighed, cleaned, sorted, repackaged as necessary, and distributed to partner sites (Spokes) in the community on a consistent schedule (around every two weeks). The Spokes could be churches, pantries, schools, community centers or other partner sites which are located in the communities of need.

In general, the Hub will distribute food using refrigerated trucks with enough food for large mobile drops (around 6,000 pounds, which is enough for ~200 families). The food on the trucks will consist of fresh, local products but may also include a variety of less perishable items supplemented by the Maryland Food Bank. Mobile drops typically require 10-15 volunteers, take less than 6 hours, and cost nothing to the pantry/church. Because of the size of the drops, Farming 4 Hunger recommends that several churches/organizations work together to staff and advertise the event.

Each mobile drop should occur regularly (around every other week) to ensure that needy receive a continuous supply of fresh, healthy, yet perishable food, and ideally the drops should be accessible by public transportation. The mobile drops will typically be composed of a variety of fresh produce, but the drop can be supplemented by the Food Banks to promote a more complete nutritional package, especially during the winter months. Additionally, Spokes can pick up food items from the Hub for distribution during regular pantry hours.

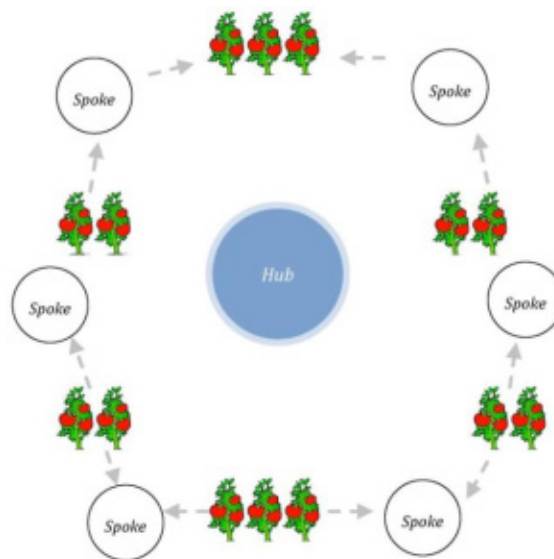
The Spoke provides outreach to their community and volunteers who immediately repackage and/or distribute the food to the recipients. The Spokes will keep information regarding the number of families and conduct confidential surveys of the food recipients to gauge the success of the program.

Outreach and educational materials may be made available during mobile food drops, such as easy recipes, cooking classes, information about storage, nutritional information, etc. (see

Outreach and Education). Once the mobile drop site distribution event is finished, excess food will be distributed to a participating pantry or partner site with refrigeration or distributed elsewhere in coordination with the Food Banks and/or Spokes.

Direct-to-Spoke Model: Distribution from the farm or garden directly to a partner site (Spoke)

In this model, locally produced food is distributed directly to the Spoke. The Spoke is responsible to ensure the food is edible, weigh the food, issue a receipt based on edible weight to the farmer, and distribute the food to recipients. All Spokes accepting food directly (not through the Hub) must be authorized to accept donations and will use scales to weigh the edible donations and issue a receipt.



Spoke Options: The Hub and Spoke Task Force has reached out to churches, Food Banks, food pantries, anti-hunger organizations, and schools to identify appropriate Spokes for food distribution. Pantries and churches were very interested and willing to work together to create mobile drops within their community. School Superintendents and Food Service Supervisors are very keen to work with the Hub and Spoke to get food to students and families in targeted schools through mobile drops possibly paired with afterschool activities (e.g. PTA meetings).

Recommendations: The Hub and Spoke Task Force recommends that the Hub be located at and run by the non-profit, Farming 4 Hunger, Prince Frederick, (Hub located at Serenity Farm, Benedict, Charles County). Bernie Fowler Jr., Director of Farming 4 Hunger, is agreeable to hosting the Hub. Farming 4 Hunger currently provides direct food distribution in the three Southern Maryland counties, as well as Southern Anne Arundel and Prince George's counties. Farming 4 Hunger has grown over 2 million pounds of food for anti-hunger efforts since 2012 and is capable of expansion to handle and distribute large food donations.

Food drops by the Hub will occur on a regularly scheduled basis, which will be made publicly available on websites and within the community. Farming 4 Hunger anticipates food drops will occur twice daily in the height of the growing season. Ideally, each Spoke will receive a food drop once every other week. Where possible, Spokes will be located so that families can conveniently pick up food once a week, if needed.

While the Task Force will continue to identify Spoke sites, the following sites have already been identified as Spokes in 2014 based on their location, volunteer availability, need, and outreach:

Calvert County:

1. St. Paul's Church (Calvert)
2. End Hunger Calvert County (Calvert)
3. Trinity United Methodist Church (Calvert)
4. Emmanuel Church (Calvert)
5. Middleham Chapel (Calvert)

6. Calvert Baptist Church (Calvert)
7. Calvert Memorial Hospital (Calvert)
8. Mt. Olive Church (Calvert)

Charles County:

1. Lifestyles of Maryland – multiple locations (Charles County)
2. Blue Crabs Stadium (Charles)
3. Waldorf Seventh Day Adventist (Charles)
4. New Life Church (Charles)

St. Mary's County:

1. Lexington Park Baptist Church (St. Mary's)

In addition, the Task Force recommends the following schools be considered as Spokes, in order of need:

Charles County:

1. Mt. Hope Elementary
2. Barnhart Elementary
3. Ryon Elementary
4. Mudd Elementary
5. Parks Elementary
6. Indian Head Elementary

St. Mary's County:

1. Near G.W Carver Elementary School (Recommended location: the Housing Authority)

The Task Force will continue to identify appropriate spokes for food distribution, including food pantries, churches, local firehouses, fairgrounds, social services, anti-hunger organizations, schools, and more.

Economic Incentives for Fresh Food Donations

Vegetable Farm Statistics for Southern Maryland (see Table A1)

In 2007, there were 931 vegetable farms in Maryland, of which 845 harvest vegetables for fresh market (versus vegetables for processing). 173 of the farms that harvest for fresh market are in the three Southern Maryland counties of Calvert, Charles, and St. Mary's, and the majority of these farms are small (less than 24 acres) (Figure A12). Total vegetable sales from those three counties were \$3.9 million, and Maryland farm income from vegetables was \$74.0 million in 2007 and \$65.7 million in 2011. As of 2012, there were three certified organic farms in the three southern-most counties, three in Prince George's, and one in Anne Arundel.^{17,18}

Background on Farm Food Donation Taxes

Maryland is one of 30 states which use the Federal Adjusted Gross Income (AGI) as the basis for their state income taxes. The AGI is used as a starting point, which is then adjusted further by Maryland-specific tax laws. Currently, federal law states that tax deductions are limited to the "cost basis" of the property, wherein the "cost basis" is generally what was paid for the property. In the case of a farm, the "cost basis" is the amount it cost to produce the food. Farmers may already deduct the cost of food production (inputs) on their IRS Tax Form Schedule F, therefore the "cost basis" of a farm product equals zero and as such, most farmers get no tax deduction for charitable food donations.

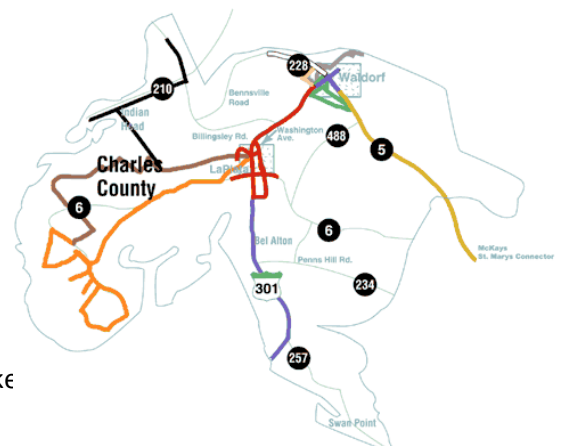
Southern Maryland farmers agreed that they do occasionally have surplus; however, there is currently no incentive to donate food. Harvesting, packaging, and distributing the food for donation incur a cost to the farmer, thereby disincentivizing fresh food donations. Additionally, during periods of surplus, farmers are at their busiest and likely need reasonable incentives to encourage surplus donations.

Although federal tax laws do not provide deductions for food donations by farm businesses, Maryland tax law §10–208 does have a subtraction modification at 100% of the wholesale value of the donated product *for individuals* (not businesses). As such, home gardeners can donate food for a credit but farm businesses cannot. As a result, Maryland state and local governments spent only \$4,000 and \$2,500 on this credit, respectively.¹⁹

In the past, several states (Oregon, Colorado, North Carolina, and Arizona) created laws providing tax credits for farm business charitable food donations, thereby encouraging farms to donate fresh, healthy foods to local charities. Under these laws, farmers in Oregon, Colorado, and Arizona have been able to take state credits/subtractions of up to 10%, 25%, and 80% of the wholesale or retail value of the donation, respectively. In contrast, North Carolina allows farmers to take deductions on gleaning donations only, with a credit equal to 10% of the market price. It should be noted that the credit in Oregon has expired and anti-hunger groups are currently attempting to renew it.

The Task Force does not need to address issues of liability, as the Maryland's Good Samaritan Law and the Federal Bill Emerson Good Samaritan Food Donation Act provide exemption of liability for those who donate. These laws protect food donors from liability except in the face of "gross negligence" or intentional misconduct.

Task Force Recommendations



Based on conversations with the Maryland Comptroller's Office and Southern Maryland farmers interested in donating excess/secondary produce, the Hub and Spoke Task Force recommends creating a 50% tax credit for farm food donations (75% for certified organic farm food donations). The credit will be available for eligible fresh food donations as of January 1st, 2014.

Tax Credit Versus Deduction: Farmers strongly prefer a tax credit to a deduction (subtraction/modification), as the credit is worth significantly more. The Comptroller's Office noted that a credit may be possible, but that legislators will likely want some form of cap to ensure limited state spending.

Cap: Farmers disliked the idea of a cap (limit on the amount of food to be donated), especially a cap as low as some other states (Arizona and Colorado set a cap at \$1,000 per business per year). In 2013, the average uncompensated donation by a farmer to the Maryland Food Bank was 14,848 pounds of fresh food, suggesting a cap of \$1,000 would severely limit the incentive for farmers to donate. As such, the Task Force recommends a cap of up to \$5,000 per farm per year and a total of \$1,000,000 per year for the entire program. It may be most appropriate to assess and adjust the need for and size of a cap after the first year of the pilot program and then again after the second and third year.

Carryover: Farmers prefer a carryover for the maximum amount of five years, as weather variables often impact a farm's level of production in any given year, and new farmers may already be at the limit of their tax credits (e.g., new farms may be investing so much in their businesses that they deduct nearly everything and hence pay little tax). As such, the Task Force recommends carryover for five (5) years after the date of donation, even if the farm food donation tax credit law expires.

Other Credit Options: In lieu of accepting a tax credit, a farm food donor may be offered the option to donate their tax credit to a non-profit involved with directly providing food to food-insecure populations.

To Qualify for the Credit: Farm businesses must be located in Calvert, Charles, or St. Mary's counties to claim the credit; however, the Task Force recommends enabling the Comptroller to extend the credit to farmers in Prince George's and Anne Arundel if the Southern Maryland Agricultural Development Commission (SMADC) votes to include those counties. Any locally grown fresh produce (vegetable or fruit) is eligible.

Regardless of how the price is set, to receive the tax credit, farmers must donate to Spokes which are authorized to accept the produce (includes identifying, weighing, and sorting/discarding) and give a receipt for the weight of edible product donated.

Determining the Values of Donated Food (assuming credit): Food values will be based on the weight of edible food donated. The weight of the donated food will be verified by the Hub, Food Banks, pantries, or other sites certified to accept fresh food, weigh donations, and issue receipts. While certified scales would be ideal for issuing receipts, not all pantries have access to certified scales, especially smaller ones. The Maryland Comptroller's Office does not believe certified scales will be necessary for receipt issuances. Consistent with this, the current Maryland farm product donation tax law (§10-208) does not require use of certified scales.

Determining Donation Credits: Farms donating conventional, fresh farm products for human consumption will receive a credit valued at 50% of the wholesale value of the edible product

donated. Farms donating certified organic produce for human consumption will receive a credit valued at 75% of the wholesale value of the conventional form of the product donated. This difference exists to partly compensate for both the higher market value and the higher production costs of organic produce. Pegging all the donation credits at the conventional price would discourage certified organic farmers from donating. The value of the donated product remains the same whether or not the product is transported by the farmers or gleaned by volunteers.

The wholesale value of the donated product will be based on the value of the product as set weekly by the MDA (or another agricultural service organization) based on USDA reports of Maryland products sold at Maryland markets, such as the Baltimore Terminal Market (or as geographically close as possible if Maryland data is not available). In recent years, USDA/AMS reports prices for highly perishable produce at the Baltimore Terminal Market have ranged between \$0.28/lb. (cucumbers) to \$0.68/lb. (tomatoes) (Table A2). The weekly value reports for the Hub and Spoke shall be posted regularly online by either the MDA or another agricultural service organization.

Caveats: Farmers would prefer much higher credits (up to 90% of the wholesale value of both conventional and organics), a more personalized verification system (such values set through actual farm business receipts), and no cap.

The Hub and Spoke Task Force will assess, evaluate and report yearly to determine how much unclaimed credit remains at the end of the year and whether the farm donation credit is actually incentivizing farmers to donate food.

The Task Force also recommends receiving an annual report (on or before July 1st) from the Comptroller's office regarding state expenditures on this tax credit. Additionally, to ensure that receipts for credits do not exceed the state cap, farm businesses should be able to log their donations into an online system, thereby allowing for up-to-date reporting of the amount of credit expected to be used. Should the online credit log indicate the state cap could be exceeded, the Task Force should communicate the end of the tax credit for the year to farmers.

Cost to the State: Estimated Future Donations with Tax Credit

The following addresses several ways to estimate the Tax Credit cost to the State. As actual data is unavailable at this time, estimates are based on rational extrapolations.

Estimate Method 1: Average Maryland Donation

In 2013, 35 Maryland farms donated fresh food to the Maryland Food Bank for no compensation.²⁰ This accounts for approximately 0.27% of the number of total farms in Maryland. Each farm donated between 50 pounds-60,000 pounds of food (which is likely on the very high end of donations), and the average annual donation per farm was 14,848 pounds.

There were 1,313 farms in Southern Maryland in 2007.²¹ If the tax incentive doubled the number of farms donating in 2013, then 7 (0.54%) Southern Maryland farms would donate an average of 14,848 pounds each, or 103,936 pounds total.

In late November, the average value of highly perishable vegetables sold at the Baltimore Terminal Market was \$.67/lb.²² If 103,936 pounds of food were donated and then credited at 50% of the Baltimore wholesale value, then Southern Maryland farmers would earn **\$51,968** in

state tax credits.

Estimate Method 2: General Donation Estimate

There are 173 farms in Maryland that harvest vegetables for the fresh market in the three southern counties of Calvert, Charles, and St. Mary's. Annual sales from these three counties are reported to be \$4 million (see Table A1, note this data does not include fruit such as melons).

Based on a desirable tax credit, one could estimate that 20% of the farms would be willing to donate fresh vegetables for anti-hunger efforts. One could also estimate that each of these farms would donate a maximum of 10% of their product, or gross revenue.

Total vegetable sales of the three counties (\$4 million) x the number of probable donating farms (20%) x product per donating farm (10%) = \$80,000 (this does not include fruits, which would also be eligible).

If a tax credit of 50% were offered, the cost to the state would be **\$40,000**. ($\$80,000 \times 50\% = 40,000$).

Estimate Method 3: 500,000 Pounds of Food Donated

Using the value of wholesale prices in Table A2 (which includes vegetables, but not fruit), the estimated wholesale value of 500,000 pounds of donated produce is about \$245,000. At a tax credit of 50%, the cost to the state would be **\$122,500**.

To get a better idea of the amount of fresh produce that might be donated by farmers in Southern Maryland, individual farm businesses should be questioned as to their estimated total donation in 2014 in light of the estimated tax incentive.

Recommendations: The Task Force recommends a tax credit worth 50% (75% for certified organic) of the donated products' wholesale value with a cap of \$5,000 per farm per year and a state cap of \$1,000,000 per year for the entire program with a carryover for five (5) years after the date of donation, even if the farm food donation tax credit law expires.

The Hub and Spoke Task Force will assess, evaluate and report yearly to determine how much unclaimed credit remains at the end of the year and whether the farm donation credit is actually incentivizing farmers to donate food.

The Task Force also recommends receiving an annual report (on or before July 1st) from the Comptroller's office regarding state expenditures on this tax credit. Additionally, to ensure that receipts for credits do not exceed the state cap, farm businesses should be able to log their donations into an online system, thereby allowing for up-to-date reporting of the amount of credit expected to be used. Should the online credit log indicate the state cap could be exceeded; the Task Force should communicate the end of the tax credit for the year to farmers.

Labor Incentives for Fresh Food Donations

Another encouragement for some farmers to donate food would be a labor incentive, whereby farmers agreeing to donate food can utilize low-cost labor populations from the state, such as from the Department of Corrections (inmates/community service workers) or from social services (unemployed populations). The Department of Corrections (DOC), through the Southern Maryland Pre-Release Unit run by David Towers, is very excited about and amenable to working with the Hub and Spoke Task Force to increase fresh food distribution at multiple levels. Pre-release inmates are currently available and willing to harvest and package food at Farming 4 Hunger under the supervision of Farming 4 Hunger staff. Inmates could also harvest and package donated produce at local farms under the supervision of Corrections Officers. In addition to harvesting, inmates could be useful during distribution from the hub to the spokes (pantries, mobile drops, etc.), as they could help unload the produce and maybe even help distribute to food-insecure families at the site.

The DOC is willing to provide supervisory training, inmate transportation, and guards free of charge for Hub and Spoke activities because the Hub and Spoke is a community service. However, to make it financially worthwhile for the DOC, the harvesting must require several inmates over the course of a few days. Longer-term harvesting projects may require further discussion.

In this model, inmates could work their way up to three different tiers within the Hub and Spoke:

1. Harvesting at Farming 4 Hunger under the supervision of Farming 4 Hunger staff
2. Harvesting at other farms under Correctional Officer supervision
3. Unloading and possibly distributing at mobile drops

This serves the dual purpose of not only advancing the cause of supplying fresh food to those in need, but also providing training and job skills to pre-release inmates for possible future employment upon release.

In addition to harvesting produce for food-insecure families, Farming 4 Hunger is also looking into providing protein options through meat; however, processing meat is time-consuming and requires processing skills. Fortunately, the DOC already has inmates learning to process meat at the Maryland Correctional Institution-Hagerstown prison's processing plant,²³ and those skills could be applied in the future at a meat processing plant in Southern Maryland. The plant would be USDA-approved and could be staffed by processors released from the Hagerstown correctional institution, who would receive living wages for their skilled work. In return, the Southern Maryland farming community and Farming 4 Hunger would have local meat processing options, thereby reducing the cost of local meat for distribution to both food-insecure and retail communities. A similar program could be established for fresh produce processing (for example, flash freezing or preparing for institutions such as schools that have limited ability to process fresh produce).

Caveat: Not all farmers may be comfortable utilizing this form of labor, depending on the crop, due to bio-risk (such as federal HACCP regulations) and safety concerns. Not all Spokes, such as schools, may be comfortable with the DOC labor force assisting with food distribution on-site.

Recommendations: The Hub and Spoke should continue to investigate opportunities to utilize the correctional workforce through the DOC, which is very amenable to working together to address food insecurity in Southern Maryland.

Infrastructure Recommendations

Based on the needs assessment and the Hub and Spoke distribution models, the Hub and Spoke Task Force has identified opportunities for investment necessary for efficient food distribution to food-insecure communities in Southern Maryland. As such, we recommend the following investments:

- **Refrigerated Box Truck**: Once food is donated to or harvested from the Hub (Farming 4 Hunger), the food needs to be quickly distributed locally to mobile drops and pantries. As such, the Hub will need to be able to transport fresh produce, thereby requiring a refrigerated box truck for the months in which the majority of the produce is donated (June through October). One truck is anticipated in Year One, with additional trucks needed in Years Two or Three. (estimated cost: \$65,000/truck)
- **Refrigerated Trailer**: A trailer would be parked at the Hub and offer cold storage for crops not immediately delivered to the Spokes (estimated cost: \$7000)
- **Truck Driver**: Farming 4 Hunger is mainly run by volunteers and community service workers; however, driving a commercial truck requires skill and scheduling consistency. As such, a temporary, part- or full-time driver is needed. (estimated cost: Unknown)
- **Operating Costs**: Diesel, maintenance, registration, insurance, utilities, etc. (tbd)
- **Packaging Costs**: Boxes and bagging will be needed for repackaging at the Hub and/or Spokes (tbd)
- **Certified Scales**: Although the Maryland Comptroller's Office suggests that certified scales may not be necessary for farmers to receive tax deductions for donations, some of the Spokes and larger pantries or Food Banks accepting larger donations should have scales certified by the MDA. Currently, most pantries do not have scales that are not able to be calibrated, as such, certifiable scales will need to be purchased for targeted spokes. The Maryland Department of Agriculture (MDA) has offered to certify scales pro bono. (minimum cost of certifiable scale: \$200 / scale)
- **Food Distribution & Outreach Coordinator**: This position will work under SMADC. The Coordinator will coordinate produce donations by local farmers (donated either to the Hub or to a pantry), mobile drops, pantry/Food Bank drops, and Food Bank supplements. The Coordinator will also market food donation opportunities to increase farmer donations and coordinate outreach at pantries/drops. The position is full-time with the following skills:
 - Work experience: Three years sales/marketing experience and a solid background in the food industry, e.g., retail, food service, manufacturing/sales
 - Excellent communication and PR skills, both verbal and written
 - Professional phone manners and customer service skills required
 - Proficiency in Microsoft Office, with concentrated strength in Excel and Word and Social Media
 - Work a flexible schedule, nights and weekends as needed
 - Must have ability to and feel comfortable with presenting the Hub and Spoke program to current and future farmers and donors

Essential Functions and Responsibilities:

- Research and develop farmer food donor prospect list
- Contact prospects by phone or personal visitation for solicitation
- Keep in regular contact with existing key food donors for available product
- Work closely with the Hub Transportation Manager and the Warehouse Manager to ensure timely trucking and storage preparation
- Oversee programs to acknowledge and recognize product donors

- Act as the point of contact for Spoke sites and mobile drop sites
- Inspect sites and works events at the sites as required
- Compile progress reports for F4H, SMADC, and grantors
- Coordinate activities with the warehouse, transportation, media relations, and any other department in the Hub and Spoke

Working Conditions: Transportation is required, as some travel will be necessary. The majority of the work will be in an office environment; however, this position requires interaction with the Hub, Spokes, and with the public throughout the year.

Suggested Salary: \$45,000-\$65,000

- **Public Transportation:** Strategic maps have been developed by SMADC identifying key information such as current food drops and distribution sites, public transit lines and public schools involved with the FARM program (Figures A10-12)

Although the Hub and Spoke is not in a position to provide public transportation, the Hub and Spoke Task Force should work with local organizations and county governments to ensure viable transportation options exist to mobile food drops or other centers of food distribution. This will be especially important for rural families lacking transportation options. Currently, the following transportation options exist:



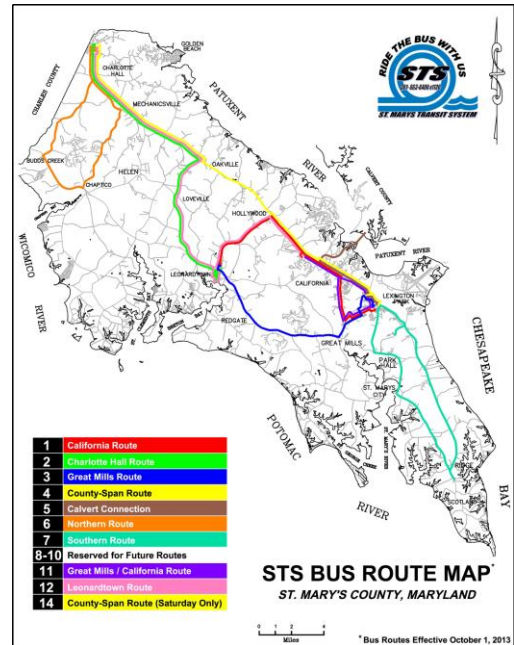
- **Calvert County Public Transportation**
 “The county provides two fixed routes and four deviated routes to link residents with major shopping, medical and employment areas, as well as with public services available in Prince Frederick.” Busses run from city to city, whereas shuttles typically operate within cities. To see route in relation to food distribution sites, see Figure A10.
Cost: For busses, adults are \$1.50, and youth are \$.50 each way. For shuttles, adults cost \$.75, and youth cost \$.25 each way. There are discounts for children (under 7), senior citizens, Medicare/Medicaid Card Holders, and disabled individuals.
Schedule: Most services are Monday through Friday only.
- **Charles County Public Transportation (VanGO)**
 “VanGO public transit provides transportation opportunities within Charles County and serves several desired primary destinations including the College of Southern Maryland, St. Charles Towne Center Mall, employment locations and medical facilities, as well as numerous shopping centers. Public Transportation provides routes that operate on fixed schedules.” To see route in relation to food distribution sites, see Figure A11.
Cost: General public is \$1 each way. There are discounts for children (under 6), senior citizens, and disabled individuals, *but no discounts for low-income individuals.*
Schedule: Most services are Monday through Saturday, between 7 a.m. – 10 p.m.
- **St. Mary’s County Public Transportation (St. Mary’s Transit System)**

“The public transportation routes operate from Charlotte Hall to Leonardtown, California, and Lexington Park and Ridge.” Busses will stop at pre-determined locations or will honor “stop requests” along the route. To see route in relation to food distribution sites, see Figure A12.

Cost: General public is \$1 each way. There are discounts for children (under 12), senior citizens, and persons with disabilities, Medicare Card Holders, and students, *but no discounts for low-income individuals.*

Schedule: Services are provided all-week, typically 6 a.m. – 8 p.m.

Limitations: Public transportation is typically limited in rural areas. Additionally, the busses run only during set hours (not at night/early morning and sometimes not during weekends) and tend to have set stops. Some options include creating new public transportation routes or options, or utilizing pantries providing transportation for members.



Education/Outreach

Currently, the University of Maryland Extension (UME) conducts occasional outreach (recipes and some demonstrations) at the largest pantries in Calvert, such as SMILE & Calvert Churches Community Pantry. Other organizations go to pantries to discuss services offered by their organization (ex: Calvert County Health Dept. talks about cancer screenings and smoking cessation) but don't provide much food/nutrition outreach. The majority of food and nutrition outreach is independent of food distribution events. Chesapeake Cares is working with DSS and Share our Strength to promote healthy shopping tours.

All counties in Maryland are required to do Community Health Needs Assessments (CHNA), which are led by the hospitals. In recent years, one of the top issues identified in the CHNA has been obesity and related health problems. To address issues identified in the CHNA, each county developed a Health Improvement Plan, which is enacted by the Health Improvement Coalition led by the hospitals, health departments, schools, and College of Southern Maryland. Each Health Improvement Coalition (led by Joyce Riggs in Charles County) is made up of about 10 teams, one of which is the "Chronic Disease Team." In Charles County, the Chronic Disease Team (co-chaired by Amy Copeland), works with the Healthy Stores Program to teach participants how to shop for healthy, economical food choices.

The Task Force recommends the Hub and Spoke work in conjunction with local Chronic Disease Team, as participants could receive free, nutritious food and learn how to shop for easy ingredients with which to cook the food (spices, oil, etc.).

In Calvert, the United Way of Calvert County is very involved in food issues and has funded four Community Impact Councils. One of the councils is focused on "Healthy Lifestyles," (headed by Jennifer Moreland) which helps organizations assess changes in lifestyles and perform evaluations.

Cooking classes are available through Chesapeake Cares, Anathoth House, and likely other organizations and/or local businesses such as the Ruddy Duck have expressed interest in participating. The Anathoth House, through co-founder Tracey Alston, has also offered to provide cooking lessons or demos at mobile food drops.

Opportunities for Youth Outreach: The UME hosts a pre-kindergarten reading program, which features books and lessons on nutrition through Jackie Gray. Ms. Gray also works with Head Start to teach a "Color Me Healthy" curriculum, which "is a physical activity and nutrition program developed to reach limited resource children ages four and five. The program teaches children that healthy food and physical activity are fun by using color, music, and exploration of the senses."

The Calvert Memorial Hospital works with children through "Calvert Can: Eat Right, Move More, Breath Free," a program which hands out recipes and gives presentations about fruits and vegetables to children at summer camps (Karen Mohn). The children also prepare food and taste it, thereby improving their cooking skills and broadening their tastes. Because children at the camp have mixed need levels, the camp does not distribute food beyond tastings.

Opportunities for Senior Outreach: The UME offers a 6 week course on how to teach seniors to meal plan, grocery shop, and read labels.

There is currently no formal evaluation of health outcomes, so outreach programs do not know whether or how their activities impact the target populations. However, the Chronic Disease Team held a “Kids Day” at the county fairs, at which they handed out apples and performed a community survey. Although the results of the survey are not yet ready, the staff is happy to share the results. Unofficially, many people noted that the two biggest issues with staying healthy were the affordability of fresh food and low-cost resources for exercise. Although outcomes are not currently evaluated, Jackie Gray of UME offered to perform evaluations if the Task Force provides her with a list of questions.

Recommendations:

- To establish and monitor community data and education outreach, the Hub and Spoke Task Force should work with the University of Maryland Extension and other partners, such as local health offices, Health Improvement Coalitions, local Chronic Disease Teams, and schools.
- Food-insecure populations have problems accessing fresh, nutritious food, and may also lack cooking knowledge, applicable recipes, and necessary infrastructure (refrigeration, ovens/stoves, pots and pans, etc.). As such, educational recommendations include:
 - making education and interaction a component of a food drop;
 - distributing used/donated cookbooks with very basic cooking tips and recipes;
 - distributing very simple recipes with a few basic, commonly found ingredients
 - utilizing cooking demonstrations or classes;
 - providing shopping classes (to help find other ingredients necessary for dishes utilizing fresh food); and
 - creating evaluation plans for these types of programs.

Evaluation

Recommendation: For the purpose of evaluating the Hub and Spoke program during its three pilot years, the Hub and Spoke Task Force recommends continuing the Task Force for one year and establishing an Advisory Council. The Advisory Council will include current Hub and Spoke Task Force Members and will look to include representation in subcommittees from Anne Arundel and Prince George's counties, including social ministries and farmers.

The Hub and Spoke project evaluation will use a Logic Model, which includes intended outcomes and measuring outputs. Because so many Hub and Spoke outcomes are long-term, the Hub and Spoke project will need to focus on process measures to measure success.

As the pilot project advances, the Program should look to work with the University of Maryland Extension and other partners, such as local health offices, Health Improvement Coalitions, local Chronic Disease Teams, schools to gather data and assess measures.

Goal: To improve community health through better nutrition by increasing fresh farm food access for food-insecure communities (with a focus on the low-income and the working poor).

Objectives: *Well defined achievements, specific, measurable and derived from goals.*

- Increased fresh food donations to anti-hunger organizations in Southern Maryland, including to the Hub and Spoke, Food Banks, and food pantries
- Increased fresh food access by food-insecure communities in Southern Maryland
- Increased preparation and consumption of fresh, nutritious foods
- Efficient food transportation options for food insecure communities in Southern Maryland
- Decreased incidence of obesity and health-related diseases in Southern Maryland schoolchildren and communities

Activities: *The program efforts conducted to achieve the objectives.*

The Hub and Spoke Task Force will plan a Hub and Spoke program, whereby food is locally produced, locally donated/purchased, and then distributed to food-insecure communities through pantries or mobile food drops. This will require us to:

- Create Hub and Spoke plans and infrastructure necessary to sustainably distribute fresh farm food to food-insecure communities
- Create food distribution plans through a Hub and Spoke system (ex: mobile drop locations, timing, size, etc.)
- Formulate incentives for farmers to donate their food (such as tax or labor incentives)
- Improve fresh food access, preparation, and consumption through education opportunities for food-insecure communities (food choices, storage, preparation, etc.)
- Engage the media to increase awareness of food/health issues and solutions

Process Measures: *Data used to demonstrate the implementation of activities (includes products of activities and indicators of services provided and documents whether a program is being implemented as originally intended. For example, process measures for a health program might include the number of people reached or the amount of services delivered) (# = Number)*

- # of pounds of food donated in Southern Maryland to the Hub and Spokes, etc.
 - canned goods
 - nonperishable produce
 - perishable produce
 - meat

- # of pounds of fresh food distributed to food-insecure communities in Southern Maryland
- # of certified spokes (pantries, schools, churches, etc.) accepting fresh food in Southern Maryland
- # of locations and dates at which fresh food is being supplied in Southern Maryland
- # of people accessing food during a target period in Southern Maryland
- # of farmers using the tax credit for farm businesses donating food in Southern Maryland
- Average distance fresh food for the food-insecure community travels from the original farm before distribution in Southern Maryland
- # of people accessing food education opportunities (cooking, storage, flavor, etc.) in Southern Maryland
- Average support of the Hub and Spoke in Southern Maryland:
 - Amount of money donated or in-kind donations
 - # of community organizations volunteering
 - # of volunteer hours donated
- # of families going to more than one pantry per week in Southern Maryland (highlights the depth of need) to the extent possible (determines how many people are actually served in Southern Maryland and whether they need more consistent access)

Outcomes: *Actual change in target of the program directly related to goals and objectives. May include intended or unintended consequences. Three levels of outcomes to consider include:*

Initial outcomes: *Immediate results of a program.*

- A state law providing tax incentives for fresh food donations
- Plans and infrastructure for a regional Hub and Spoke
- Programs related to the Hub and Spoke providing food education opportunities for food-insecure communities (food choices, cooking, storage, etc.)

Intermediate outcomes: *The results following initial outcomes.*

- Increased fresh food donations
- Increased fresh food access by the food-insecure community
- Greater community understanding of fresh food choices, storage, cooking, etc.
- More support for farmers capable of donating fresh food (in the form of finances and possibly labor)
- More efficient transportation of fresh food to food-insecure communities

Long Term outcomes:

- Healthier communities through better food choices and broader food opportunities. (Fresh food and decreased chronic disease are linked, and more fresh food options mean higher quality choices available. As such, we expect a return on investment in the form of better health for food-insecure residents, resulting in less burden on the state for health expenses.)

Measurements could include:

- Decreased incidence of obesity
- Decreased incidence of diabetes
- Decreased incidence of cardiovascular disease
- Decreased medical and health expenses (fewer doctor visits other than routine health checks)

To obtain these measures, the Task Force recommends partnerships such as:

- Local Health Enterprise Zones (Lexington Park)
- Partnership for a Healthier Charles County
- St. Mary's DHMH (Kelsey Bush and Ella Mae Russell)

- Possibly add a state question to the CDC's Behavioral Risk Factor Surveillance System (BRFSS) questionnaire. A suggested question could be "how many times in the past month have you used a mobile drop," assuming the term "mobile drop" is well defined. SMADC could assess the BRFSS and send any useful data to the Task Force Members. (Cost to add a question to the BRFSS is approximately \$600).
- Stronger farming community.
 - Reduced farm income loss as a result of donating excess or seconds versus allowing produce to remain unharvested
 - Increased farmers' economic and values-based ties with all sectors of the buying and charitable community

Current Process Measure Baselines

The Hub and Spoke Task Force will need to identify baselines and intended statistics for the following process measures:

- # of pounds of food donated to the Maryland Food Bank so far in 2013
 - Total: 16,584,589 (100%)
 - Canned goods: 2,292,416 (13.8%)
 - Nonperishable produce: 2,749,812 (16.6%)
 - Perishable produce: 6,767,116 (40.8%) (about half is locally produced)
 - Meat: 4,775,245 (28.8%)
- # of pounds of fresh food distributed to food-insecure communities in Southern Maryland (Distributed by Farming 4 Hunger/MD Food Bank)
 - 8/2/13 - 3,928 pounds of corn/potatoes to St. Paul's Church in Prince Frederick
 - 8/6/13 - 5,012 pounds of corn/potatoes to Lifestyles of Maryland in La Plata
 - 8/16/13 - 52,026 pounds of corn, potatoes, and green beans to End Hunger in Calvert County for distribution to pantries
 - 8/23/13 - 5,805 pounds of corn, potatoes, and green beans to Trinity Church in Prince Frederick
 - 9/13/13 - 3,550 pounds of corn and potatoes to St. Paul's Church in Prince Frederick
 - 9/23/13 - 2,000 pounds of corn and potatoes to Lexington Park Baptist Church
- # of certified pantries accepting fresh farm food in Southern Maryland
 - Currently, all pantries accept fresh food; however, none are certified or have certified scales except for the Southern Maryland Food Bank headquarters in Waldorf, MD.
- # of locations and dates at which fresh food is being supplied in Southern Maryland by F4H/MFB (does not include donations from farms directly to pantries, kitchens, etc.)
 - 8/2/13 - St. Paul's Church in Prince Frederick
 - 8/6/13 - Lifestyles of Maryland in La Plata
 - 8/16/13 - End Hunger in Calvert County for distribution to pantries
 - 8/23/13 - Trinity Church in Prince Frederick
 - 9/13/13 - St. Paul's Church in Prince Frederick
 - 9/23/13 - Lexington Park Baptist Church
- # of people accessing food during a target period in Southern Maryland
 - On average in 2013, the Southern Maryland Food Bank (and its pantries, churches,

and other drop sites) reports serving about 5,725 families or 12,788 individuals per month.

- # of farmers using the tax credit for farm businesses donating food in Southern Maryland
 - Currently, no tax credit exists for farm businesses for donating food.
- Average distance fresh food for the food-insecure community travels before distribution in Southern Maryland
 - 49.7% of the fresh, highly perishable produce donated to the Maryland Food Bank is from distributors of non-local foods (such as grocery stores). The average piece of food travels 1,685 miles by the time it gets into Maryland family kitchens (based on the Jessup Wholesale Produce Market, MD).²⁴
 - 50.3% of the fresh, highly perishable produce donated to the Maryland Food Bank is from local farms (average distance is 69.5 miles to the Maryland Food Bank), where it is then redistributed out into Maryland (maximum distance of about another 200 miles).
 - As such, the average distance traveled by the fresh, highly perishable produce distributed by the MFB food is estimated at 872 miles $((1,685*49.7%)+(69.5*50.3\%))$
- # of people accessing food education opportunities (cooking, storage, flavor, etc.) in Southern Maryland
 - In the past year, the University of Maryland has offered outreach and education opportunities for food-insecure populations through Jane Kostenko, Jackie Gray, and Liat Mackey. These efforts have directly reached 3,431 individuals and totaled 13,356 contacts (multiple contacts to same people). Indirectly, through publications, newsletters, fairs, conferences, and other communications, UME reached 4,835 individuals. Please note that these numbers do not include other outreach efforts beyond UME.
- Average support of the Hub and Spoke in Southern Maryland:
 - Amount of money donated or in-kind donations
 - In 2013, Farming 4 Hunger received a total of \$279,753 in donations. These donations were from the following sources:
 - \$203,479 - Maryland Food Bank
 - \$14,326 - Capital Area Food Bank
 - \$61,948 - Other sources, such as the general public, churches, etc.
 - # of volunteer hours donated
 - In 2013, 2,129 people volunteered at Farming 4 Hunger.
- # of families going to more than one pantry per week in Southern Maryland (highlights the depth of need) – *this statistic may be difficult to measure, as many pantries do not ask or require sign-ins*

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Appendices

Tables

Table A1. Vegetable farm statistics for Southern Maryland.

	FARMS Number of vegetable farms (2007) ²⁵	FARMS: Fresh Market Number of farms that harvest for fresh market (2007) ²⁵	ACRES Acres of farms that harvest for fresh market (2007) ²⁵	SALES Total sales vegetables (2007) ^{26,27}	ORGANIC FARMS Number certified organic vegetable farms listed with MDA (2012) ^{18,19}
Maryland	931	845	12,597	73,956	51
Calvert	62	32	400	588,000	NA
Charles	51	48	395	939,000	1
St. Mary's	93	93	689	2,411,000	2
Total 3 counties	206	173	1,484	3,938,000	3
Anne Arundel	58	57	297	NA	1
Prince George's	49	49	448	1,448,000	4
Total 5 counties	313	279	2,229	5,386,000	8

Table A2. Average wholesale prices for select highly-perishable produce (2011-2013).

Product	Price/lb.	Source
Cantaloupe (Conventional)	\$0.32	Virginia & Pennsylvania, USDA AMS
Cantaloupe (Organic)	\$1.50	Even' Star Organic Farm, MD
Cucumber (Conventional)	\$0.28	Baltimore Terminal Market, USDA AMS
Cucumber (Organic)	\$1.20	Even' Star Organic Farm, MD
Green Peppers (Conventional)	\$0.49	Baltimore Terminal Market, USDA AMS
Green Peppers (Organic)	\$1.20	Even' Star Organic Farm, MD
Summer Squash (Conventional)	\$0.66	Baltimore Terminal Market, USDA AMS
Summer Squash (Organic)	\$1.20	Even' Star Organic Farm, MD
Tomatoes (Conventional)	\$0.68	Baltimore Terminal Market, USDA AMS
Tomatoes (Organic Hybrid)	\$1.50	Even' Star Organic Farm, MD
Watermelon (Conventional)	NA	Baltimore Terminal Market, USDA AMS
Watermelon (Organic)	\$0.75	Even' Star Organic Farm, MD
Conventional Average	\$0.49	
Organic Average	\$0.89	
Organic Premium	82.3%	

Based on data from Tables S3-S7.

Figures

Figure A1. Poverty in Southern Maryland.¹

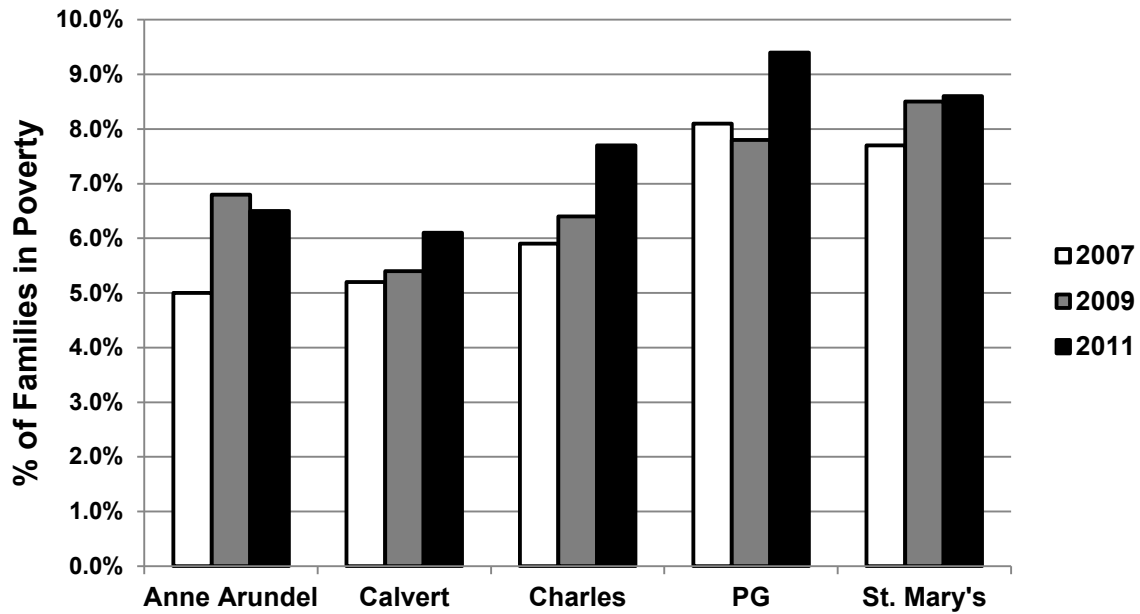


Figure A2. Food insecure populations above the SNAP level.²

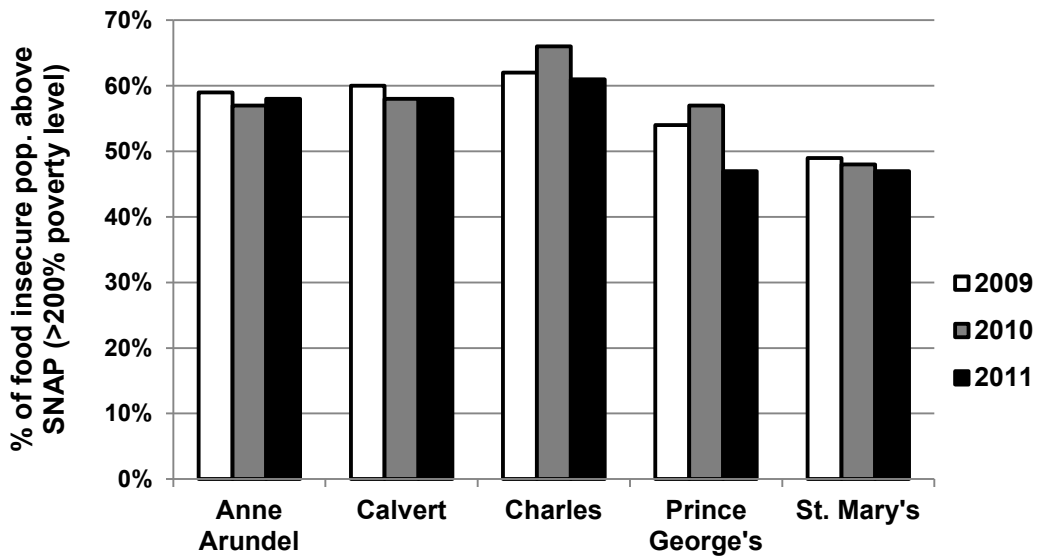


Figure A3. Comparison of SNAP level versus Self-Sufficiency Standard (2012).³

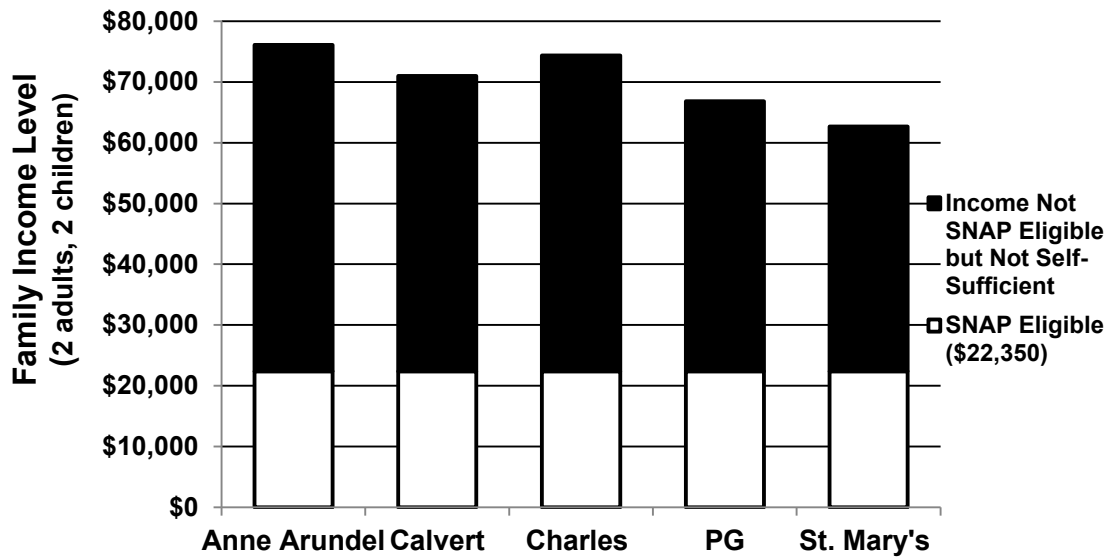


Figure A4. Income distribution in Southern Maryland (2012).⁵

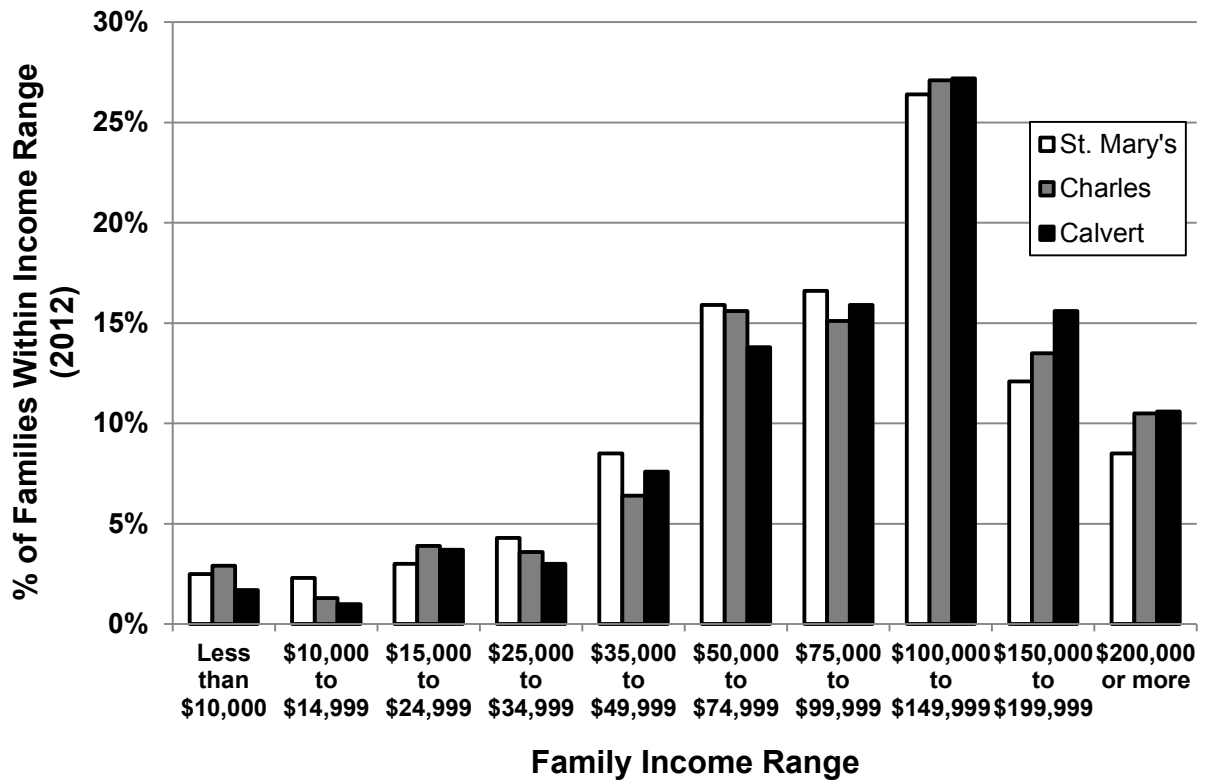


Figure A5. Change in United States household income and unemployment rate (2000-2013).⁶

Median Household Income Index (HII) and Unemployment Rate by Month: January 2000 to February 2013

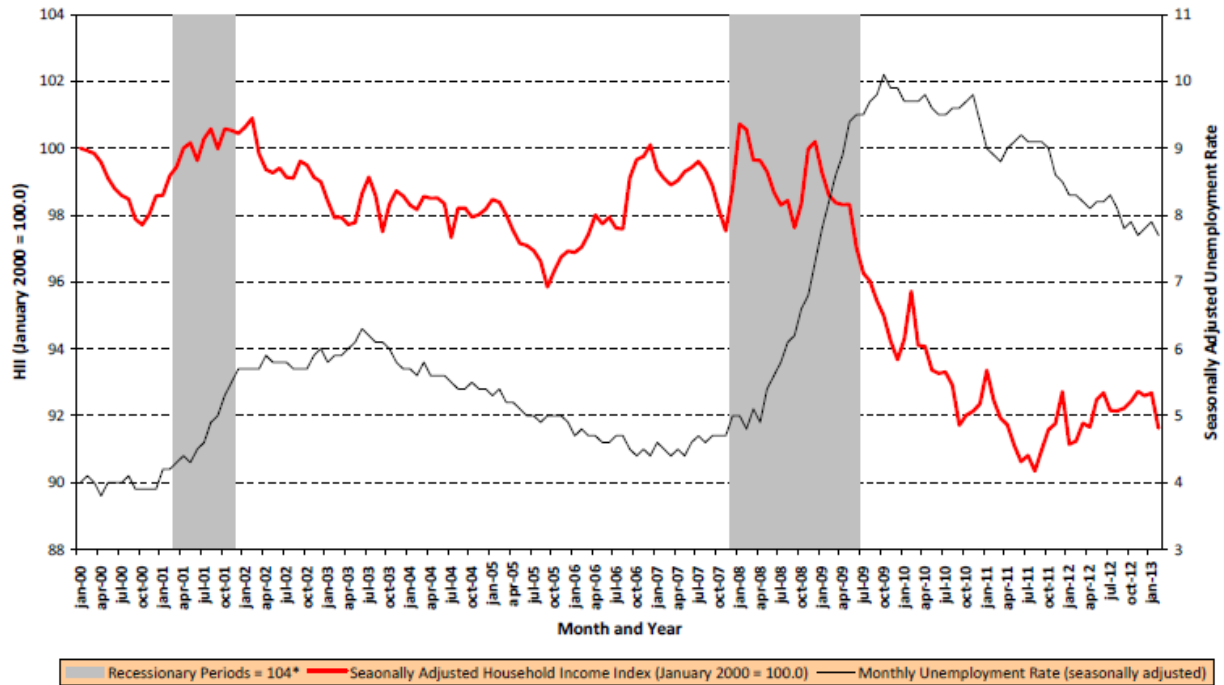


Figure A6. 2013 Average change in US Thanksgiving dinner cost from 1986-2013.⁷

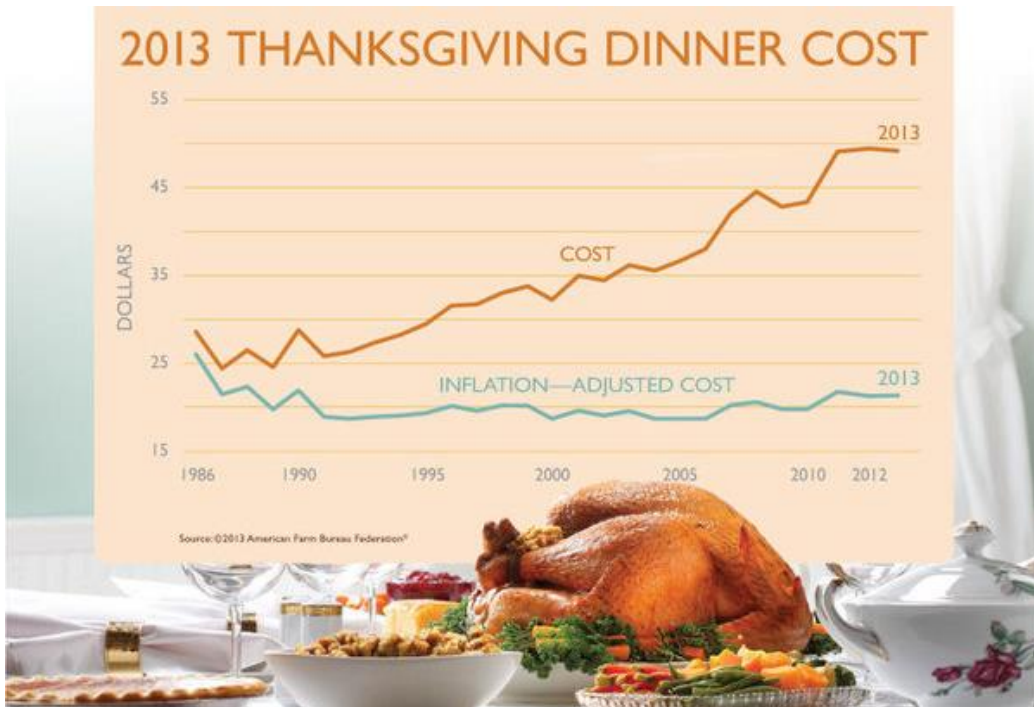


Figure A7. Servings of fruits/vegetables per day.⁹

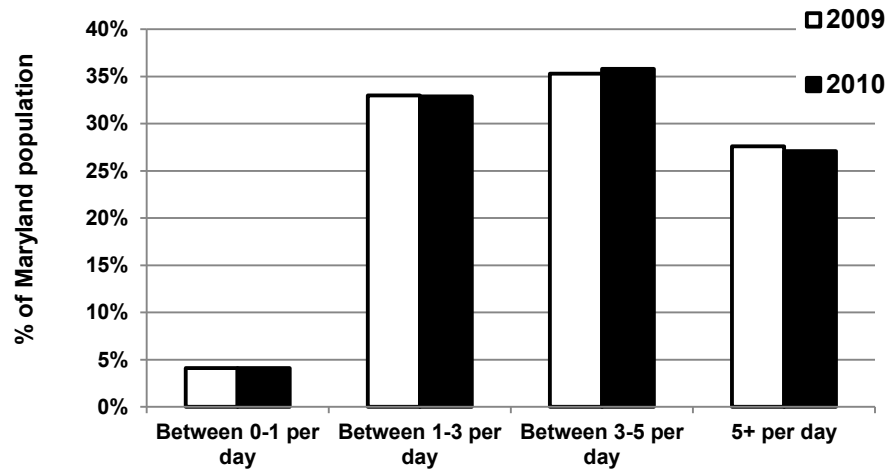


Figure A8. Calvert County food distribution, public schools, and public transportation.

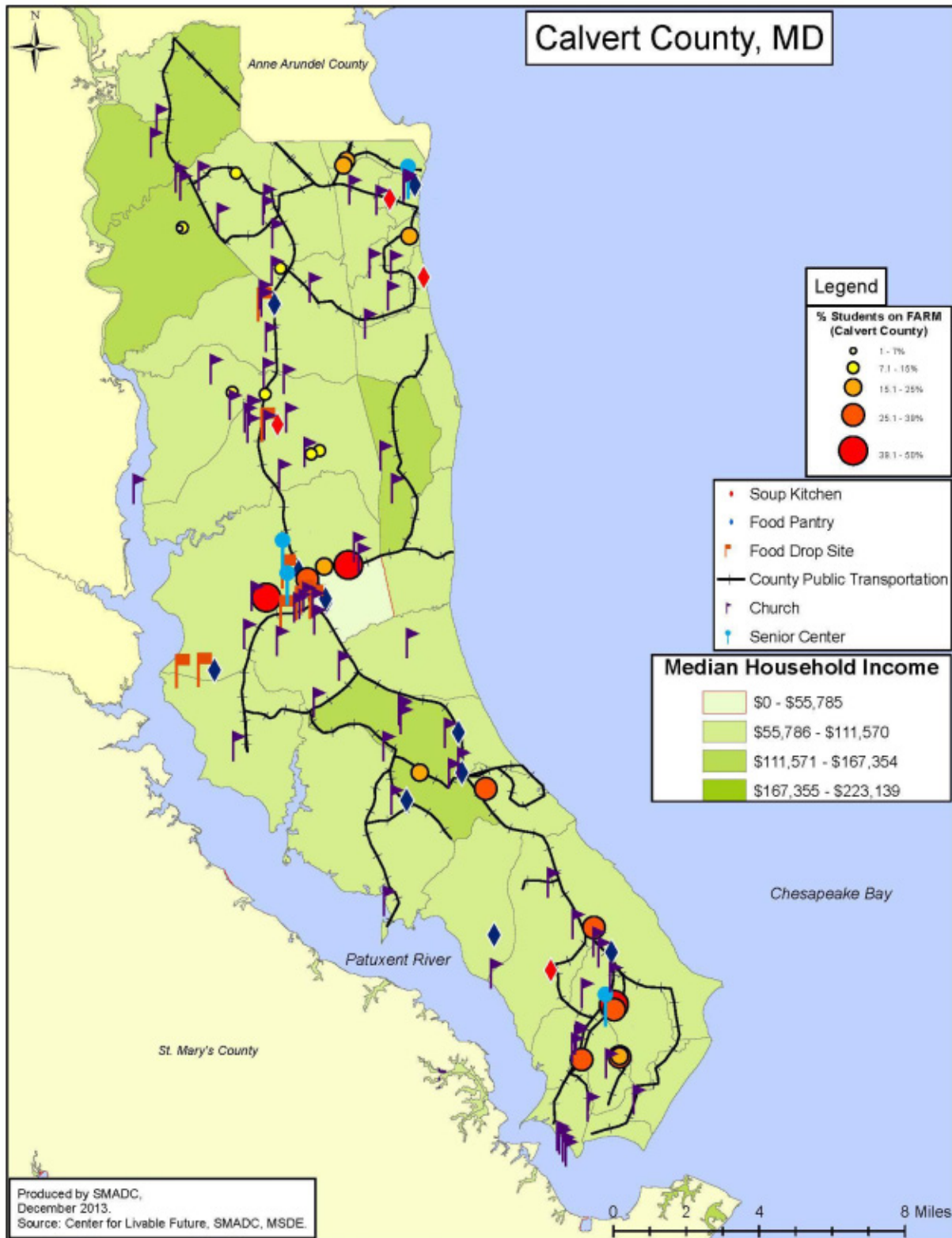


Figure A9. Charles County food distribution, public schools, and public transportation.

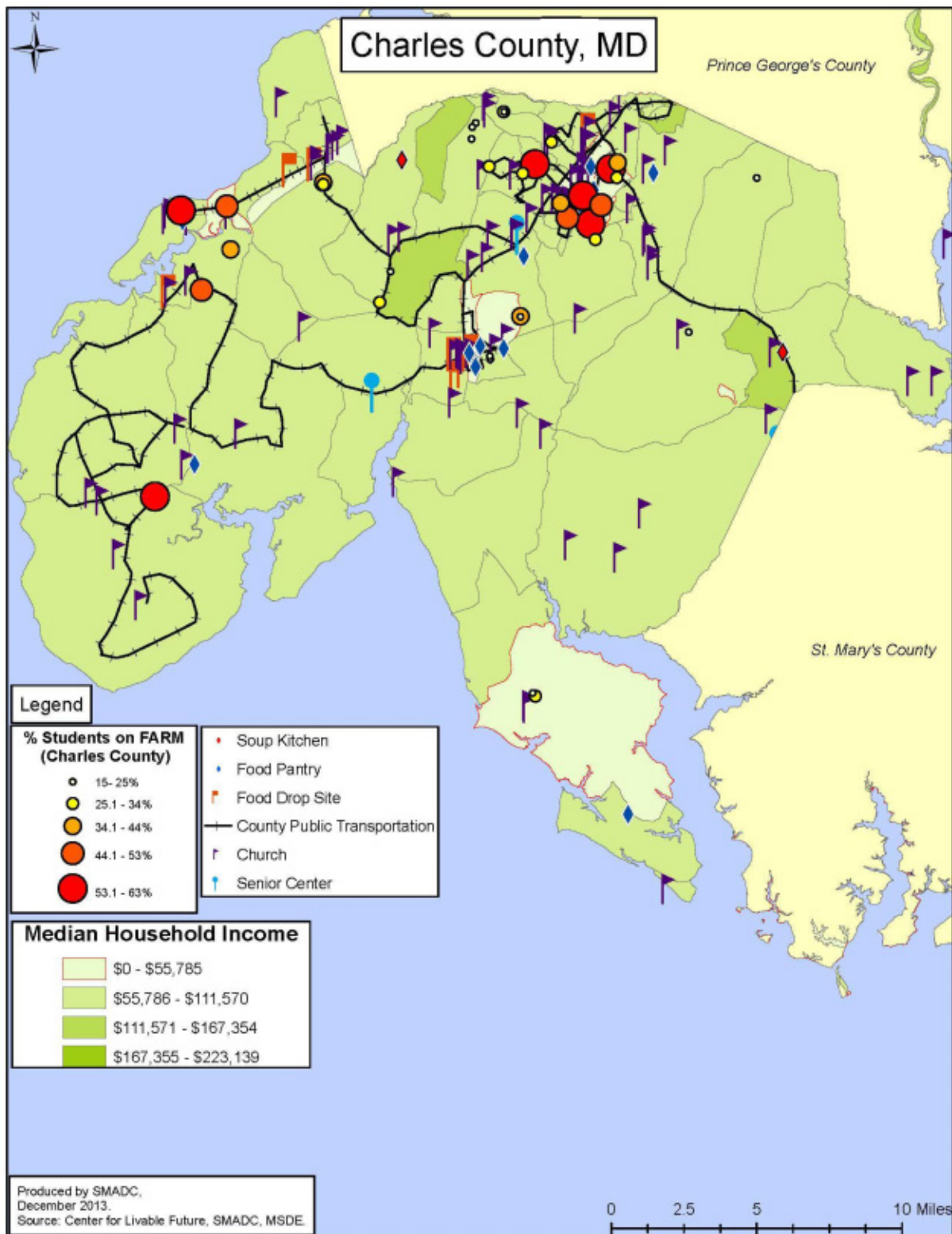


Figure A10. St. Mary's County food distribution, public schools, and public transportation.

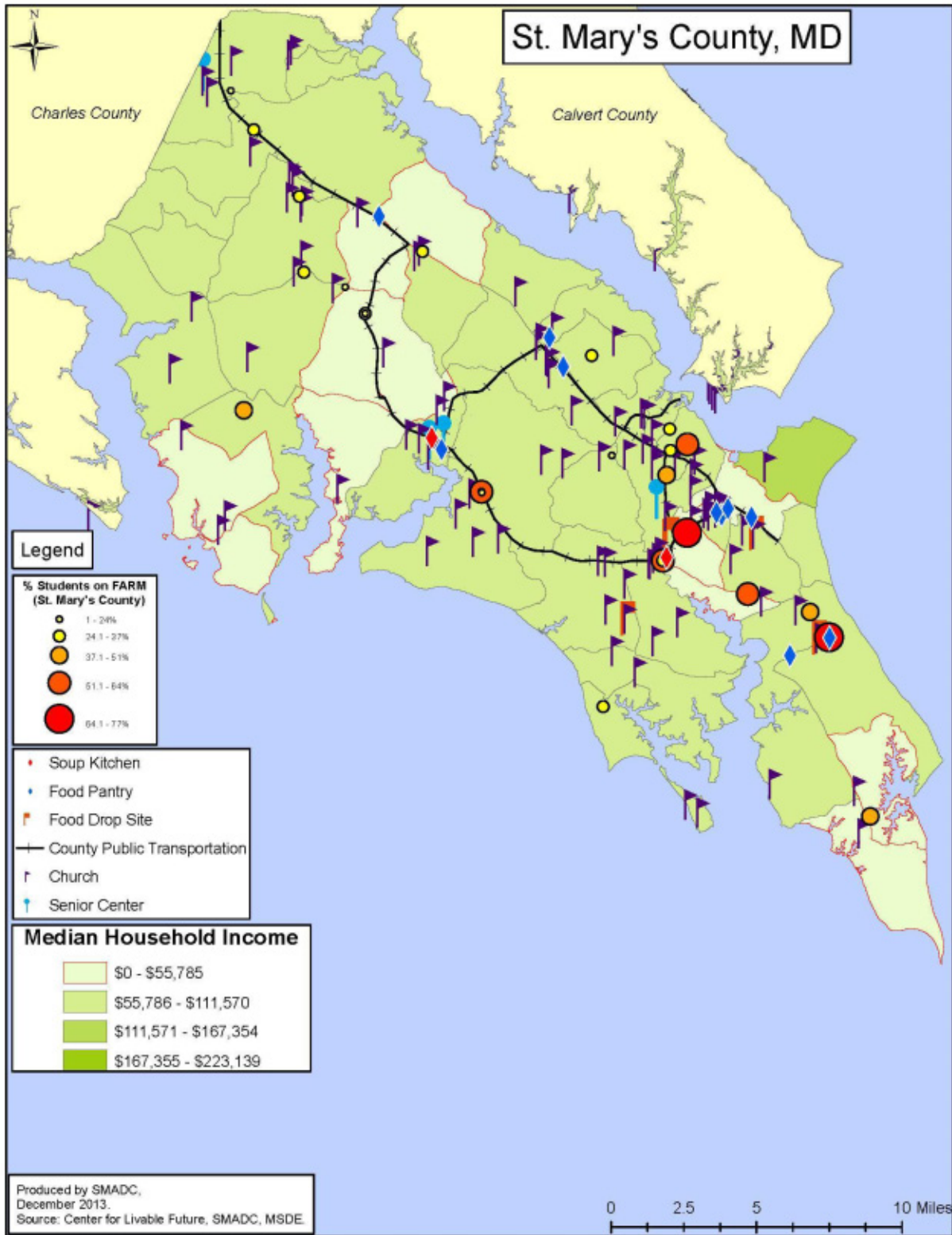


Figure A11. Free and reduced meals in Southern Maryland.¹⁴

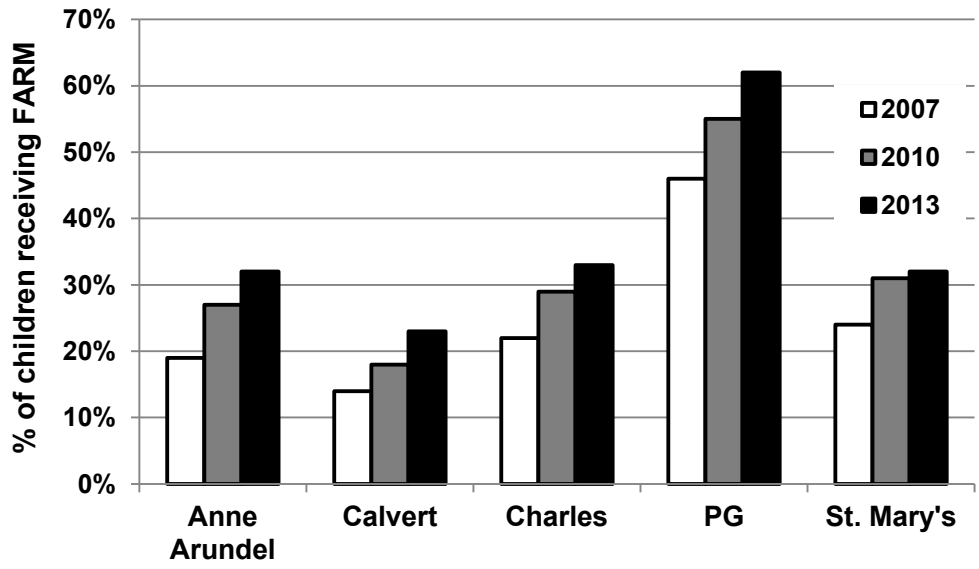
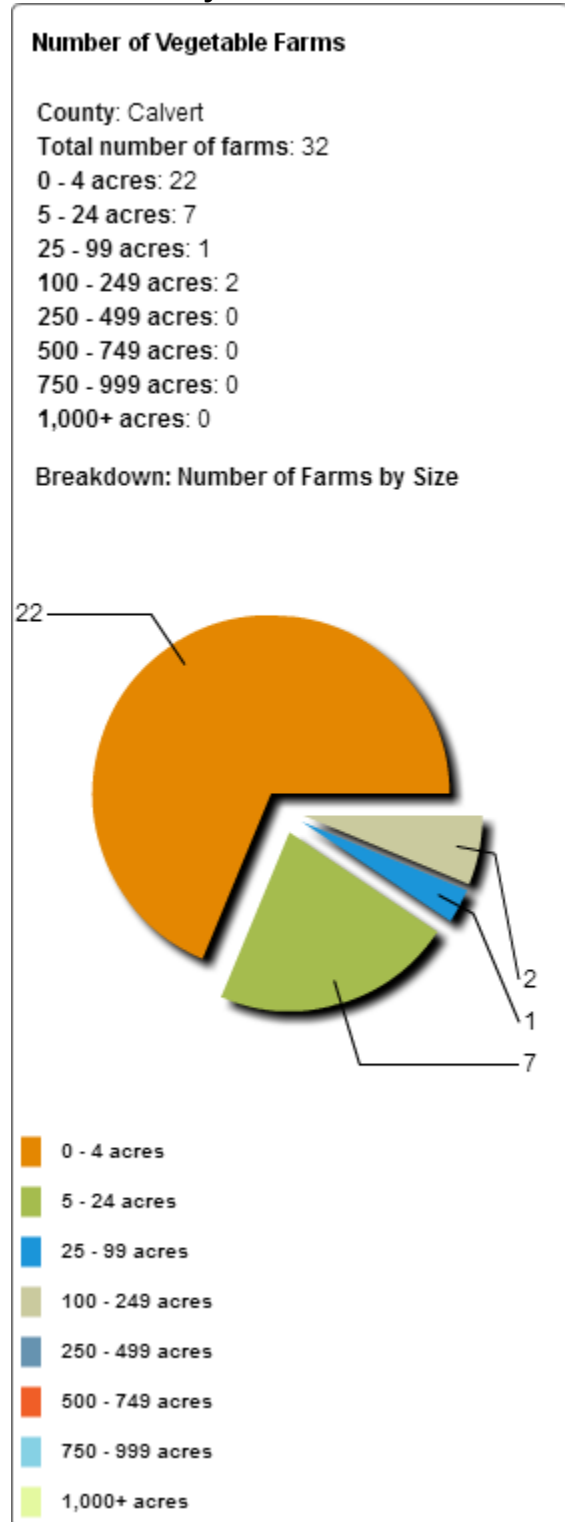
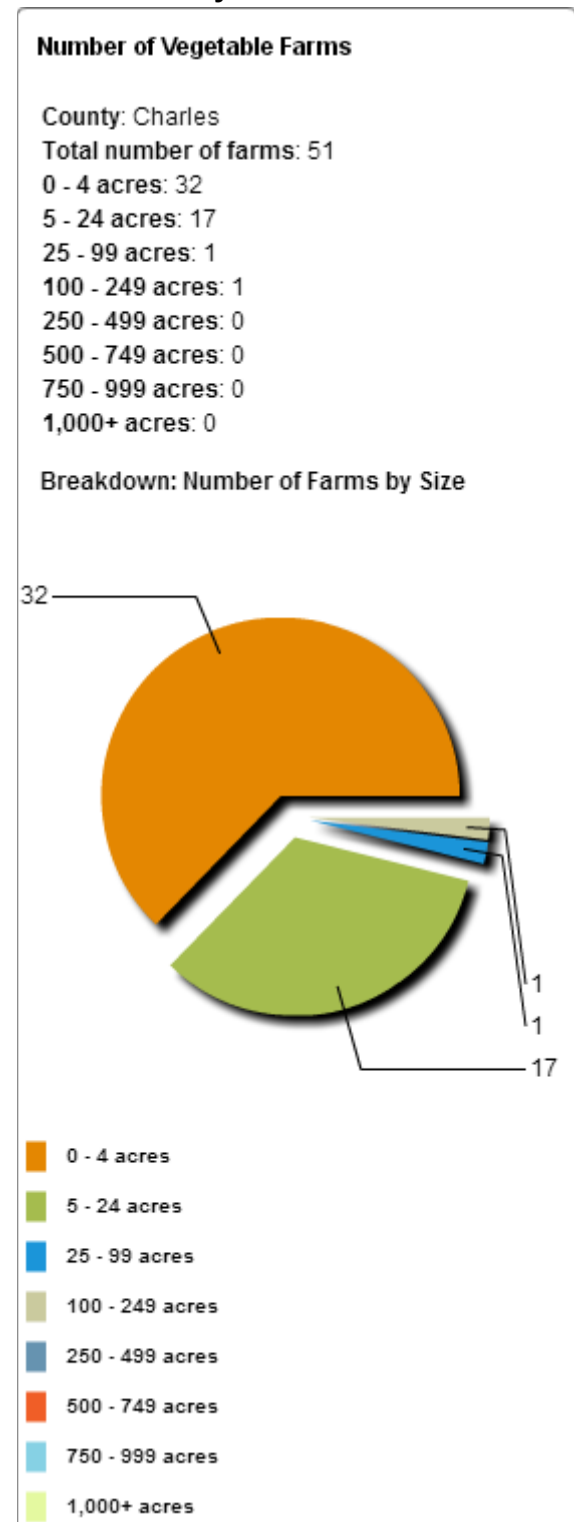


Figure A12. Size of Southern Maryland produce farms (2007).²⁸

Calvert County



Charles County



St. Mary's County

Number of Vegetable Farms

County: St. Mary's

Total number of farms: 93

0 - 4 acres: 60

5 - 24 acres: 29

25 - 99 acres: 3

100 - 249 acres: 1

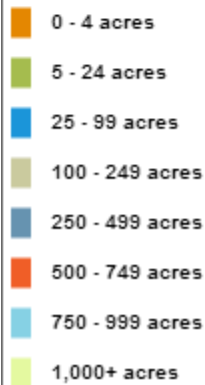
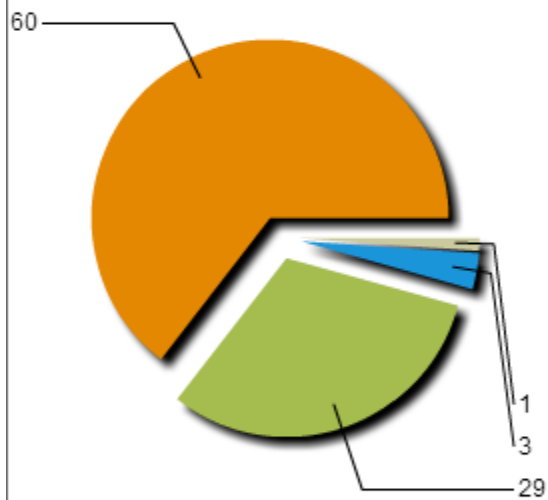
250 - 499 acres: 0

500 - 749 acres: 0

750 - 999 acres: 0

1,000+ acres: 0

Breakdown: Number of Farms by Size



Anne Arundel County

Number of Vegetable Farms

County: Anne Arundel

Total number of farms: 58

0 - 4 acres: 41

5 - 24 acres: 14

25 - 99 acres: 3

100 - 249 acres: 0

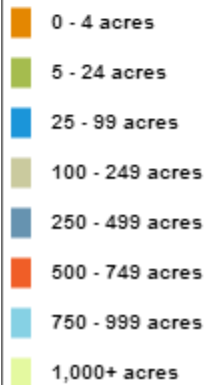
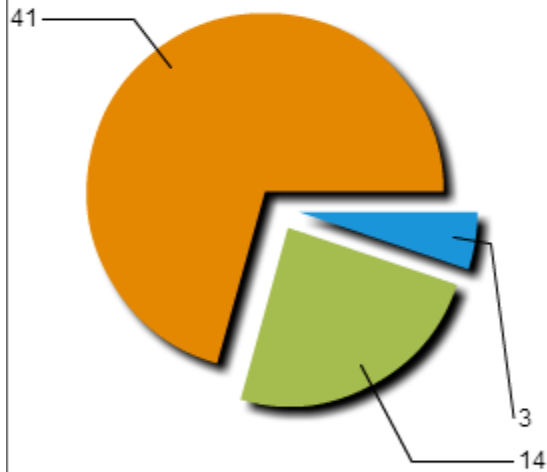
250 - 499 acres: 0

500 - 749 acres: 0

750 - 999 acres: 0

1,000+ acres: 0

Breakdown: Number of Farms by Size



Prince George's County

Number of Vegetable Farms

County: Prince George's

Total number of farms: 49

0 - 4 acres: 25

5 - 24 acres: 21

25 - 99 acres: 1

100 - 249 acres: 2

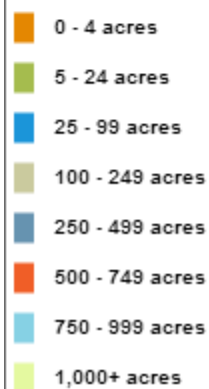
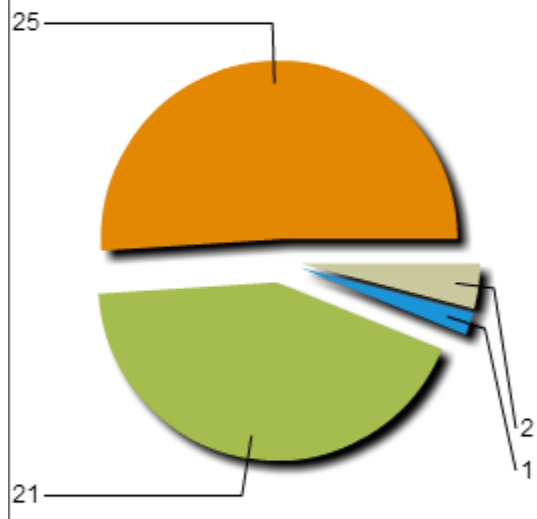
250 - 499 acres: 0

500 - 749 acres: 0

750 - 999 acres: 0

1,000+ acres: 0

Breakdown: Number of Farms by Size



Supplementary Deliberations

Economic Incentives

The following tier system was originally proposed by Maryland farmers to the Task Force:

Tier 1 – Food is donated and transported by farmer: Tax credit = 90% of wholesale value
Farm wholesale margins are about 10%. With 10% margins, if credits/reimbursements cover 90% of the wholesale price of a product, farmers would consider donations to be a good outlet for overflow and some farmers would even include delivery.

Tier 2 – Food is donated but not transported by farmer: Tax credit = 70-80% of wholesale value

Tier 3 – Food is gleaned and transported by anti-hunger organization: Tax credit = 20-30% of wholesale value. This tier requires that harvest, packaging, and distribution are conducted by volunteers. This would work best on large farms with fewer crops. Farms with highly diverse products and multi-species may be less likely to allow untrained volunteers on their land. Farms concerned with food safety issues and HCAAP plans may not allow volunteers to harvest, especially if the crop is to be handled/harvested multiple times throughout the season (e.g. tomatoes or peppers).

(Certified organic produce would follow the same tiered system, but the value would reflect certified organic wholesale produce prices.)

Verifying Wholesale prices: could be based upon any of the following, in order of preference by farmers:

- a) A price set by each farm business based on their own recent sales of the same product
Farmers would prefer to verify their own donations, as they already verify their sales to wholesalers by providing receipts. These receipts would be used to provide a value for the donated foods if the farmer was audited.
- b) A price set by the MDA based on the weekly average of wholesale distributors, such as Keany Produce, Sysco, Four Seasons, Bowie Produce, or US Foods for produce grown in Maryland
(Some farmers are concerned that if the price is set by MDA or USDA this way, it will be unrealistically low and based on commodities from other states.)
- c) A price set by the MDA based on the weekly average of wholesale market prices listed in the Lancaster Farmer for regional markets in Pennsylvania and Maryland
See concerns above.
- d) A price set by the MDA based on a single entity, such as Keany Produce or Jessup
See concerns above.
- e) A price set by the MDA based on auction sales at the Loveville Auction
Some farmers are concerned that if the price is set by the market prices at the Loveville auction, they may not reflect the labor and transportation costs incurred by non-Mennonite or non-Amish farms, as the Loveville market predominantly features produce from the Mennonite community. Farmers have observed that the Loveville auction market prices can fluctuate as much as 250% in a given week.

Intervals for setting wholesale price:

The wholesale value would be determined by the Maryland Department of Agriculture, USDA or another entity at the following intervals:

- Once at the beginning of the season
- Strategic weeks during the season (e.g.; first and third Saturday of the season months)
- Weekly during the season
- Wholesale value as determined by most recent sale price by individual farmers

Harvest-based tier system: Value of donated food is based on an average cost across all foods and farms of harvesting, packaging, and transporting.

Tier 1 – Tax credit = average cost of harvesting and packaging by edible weight

Tier 2 – Tax credit = average cost of harvesting, packaging, and transporting by edible weight

Information on the cost of harvesting and packaging for Maryland by the University of Maryland and National Agricultural Statistics Survey is not readily available. Therefore, two methods of calculating the average cost of harvest/packaging are presented. One is based on empirical data from various Extension offices across the United States. Using these data, a general estimate for conventional highly-perishable products is \$0.26/lb. (N=13) (Table S1).

The second is based on estimated data from a certified organic vegetable farm in Maryland using manual labor. In this data, the general estimate is \$0.40/lb. (N=1) (Table S2).

Supplementary Data

Table S1. Average production costs for select highly-perishable produce in other states.

Conventional	Avg. Production Cost/lb.
Cantaloupe ^{29,30}	\$0.17
Cucumber ³¹	\$0.17
Green Pepper ^{32,33}	\$0.31
Lettuce ^{34,35}	\$0.49
Summer Squash ³⁶	\$0.08
Tomato ^{37,38,39}	\$0.49
Watermelon ^{40,41}	\$0.13
Average	\$0.26

Organic	Avg. Production Cost/lb.
Organic lettuce ^{42,43}	\$0.41
Organic tomatoes ⁴⁴	\$0.55
Average	\$0.48

Production costs include inputs (seeds, fertilizer, pesticides, irrigation, etc.), planting, harvesting, packaging, and ownership costs.

- 29. Mechanical planting, manual harvest, unknown labor wages.
- 30. Unknown planting, manual harvest, unknown labor wages.
- 31. Mechanical planting, manual harvest, labor is \$10/hr.
- 32. Unknown planting, manual harvest, unknown labor wages.
- 33. Hand-set seeding, manual harvest, labor is \$10/hr.
- 34. Unknown planting, manual weeding, manual harvest, labor is \$10/hr.
- 35. Manual transplanting, manual harvest, labor is \$12/hr.
- 36. Unknown planting, manual harvest, labor is \$12/hr.
- 37. Hand-set seeding, manual harvest, labor is \$10/hr.
- 38. Hand transplanting, manual harvest, labor is \$18/hr.
- 39. Hand transplanting, manual harvest, unknown labor wages.
- 40. Unknown planting, manual harvest, labor is \$10/hr.
- 41. Unknown planting, manual harvest, unknown labor wages.
- 42. Manual transplanting, manual weeding, manual harvest, labor is \$10/hr.
- 43. Mechanical seeding, manual weeding/thinning, manual harvest, labor is \$13.50/hr.
- 44. Hand-set seeding, manual weeding, manual harvest, unknown labor wages.

Table S2. Cost of harvest and packaging for key perishable produce in Maryland at Even' Star Organic Farm.

- Assumes a workforce average cost is \$12.00 per hour (salary plus workman's compensation, etc.) and manual harvest, sorting and packaging.
- Assumes an average package cost of \$1.40 per case across all products.
- Assumes manual harvesting, sorting and packaging

	Harvest: minutes per case	Harvest: labor per case	Sorting & packaging: minutes	Sorting & packaging cost:	Case price: Harvesting & Packaging	Average Harvest & Packaging cost per pound
Cantaloupe (case of 25 lbs)	12	\$2.40	10	\$2.00	\$5.80	\$0.23
Cucumber (case of 20 lbs)	30	\$6.00	12	\$2.40	\$9.80	\$0.49
Green Bell Pepper (case of 28 lbs)	50	\$10.00	12	\$2.40	\$13.80	\$0.49
Summer Squash (case of 20 lbs)	30	\$6.00	12	\$2.40	\$9.80	\$0.49
Tomato, Vine Ripe, Hybrid (case of 25 lbs)	25	\$5.00	23	\$4.60	\$11.00	\$0.44
Watermelon (case of 10 lbs)	4	\$0.80	3	\$0.60	\$2.80	\$0.28
Average						\$0.40

Table S3. Cantaloupe: Wholesale price average 2011-2013.

Cantaloupe non-specified from VA and PA 2011-2012 1/2 cartons USDA (data unavailable from MD).

Originated in VA & PA, Terminal Market = Baltimore

<http://www.marketnews.usda.gov/portal/fv>

1/2 carton = 40 pounds

Days	USDA Average Price per carton	USDA Average price/lb.	Average price/lb. certified organic (based on Even' Star Organic Farm)
Tuesday			Organic Avg.
7/23/2011	\$18.00	\$0.45	\$1.50
7/30/2011	\$14.00	\$0.35	
8/13/2011	\$14.00	\$0.35	
8/27/2011	\$12.00	\$0.30	
9/3/2011	\$13.50	\$0.34	
	\$14.30	\$0.36	
Sunday			
7/28/2012	\$10.00	\$0.25	
8/25/2012	\$10.00	\$0.25	
	\$10.00	\$0.25	
Saturday			
8/24/2013	\$14.50	\$0.36	
9/14/2013	\$14.50	\$0.36	
	\$14.50	\$0.36	
Week's Average	\$12.93	\$0.32	

Table S4. Cucumber: Wholesale price average 2011-2013.

Cucumbers not specified 1 1/9 bushel 2011-2013 USDA from MD

Originated in Maryland, Terminal Market = Baltimore

<http://www.marketnews.usda.gov/portal/fv>

1 1/9 bushel carton = 55 pounds

Days	USDA Average Price per carton	USDA Average price/lb.
Tuesday		
6/18/2011	\$20.00	\$0.36
7/23/2011	\$16.75	\$0.30
7/30/2011	\$22.00	\$0.40
8/20/2011	\$12.00	\$0.22
9/3/2011	\$14.00	\$0.25
	\$16.95	\$0.31
Sunday		
6/23/2012	\$13.00	\$0.24
7/7/2012	\$9.25	\$0.17
7/14/2012	\$10.00	\$0.18
7/21/2012	\$15.00	\$0.27
	\$11.81	\$0.21
Saturday		
7/13/2013	\$18.00	\$0.33
7/20/2013	\$15.50	\$0.28
7/27/2013	\$18.25	\$0.33
8/3/2013	\$15.00	\$0.27
	\$16.69	\$0.30
Week's Average	\$15.15	\$0.28

Average price/lb. organic (based on Even' Star Organic Farm)
Organic Avg.
\$1.20

Table S5. Green Bell Pepper: Wholesale price average 2011-2013.

Green Bell Peppers from MD USDA prices 2011-2013 1 1/9 bushel carton

Originated in Maryland, Terminal Market = Baltimore

<http://www.marketnews.usda.gov/portal/fv>

1 1/9 bushel carton = 28 lbs

Days	USDA Average Price per carton	USDA Average price/lb.
Tuesday		
7/23/2011	13.88	0.50
7/30/2011	12.17	0.43
8/6/2011	13.00	0.46
8/13/2011	10.60	0.38
8/20/2011	11.00	0.39
8/27/2011	9.13	0.33
9/3/2011	13.25	0.47
9/10/2011	11.75	0.42
10/1/2011	16.50	0.59
11/5/2011	16.75	0.60
	12.80	0.46
Sunday		
7/14/2012	13.00	0.46
7/21/2012	10.33	0.37
8/4/2012	13.50	0.48
8/18/2012	10.00	0.36
8/25/2012	12.17	0.43
9/1/2012	10.17	0.36
10/6/2012	14.50	0.52
	11.95	0.43
Saturday		
7/20/2013	19.00	0.68
7/27/2013	15.30	0.55
8/3/2013	13.60	0.49
8/10/2013	14.88	0.53
8/17/2013	18.17	0.65
8/24/2013	23.00	0.82
8/31/2013	16.25	0.58
9/7/2013	11.92	0.43
9/28/2013	14.33	0.51
	16.27	0.58

Average price/lb. organic (based on Even' Star Organic Farm)
Organic Avg.
\$1.20

Week's Average	\$13.68	\$0.49
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Table S6. Squash Yellow Neck: Wholesale price average 2011-2013.

Squash Yellow Neck 2011-2013 prices from MD per 1/2 bushel carton USDA

Originated in Maryland, Terminal Market = Baltimore

<http://www.marketnews.usda.gov/portal/fv>

1/2 bushel carton = 21 pounds

Days	USDA Average Price per carton	USDA Average price/lb.
Tuesday		
6/11/2011	\$11.00	\$0.52
6/18/2011	\$13.00	\$0.62
7/9/2011	\$10.00	\$0.48
7/23/2011	\$9.00	\$0.43
7/30/2011	\$11.00	\$0.52
8/6/2011	\$18.00	\$0.86
8/13/2011	\$13.00	\$0.62
8/20/2011	\$15.50	\$0.74
9/3/2011	\$12.50	\$0.60
9/24/2011	\$25.75	\$1.23
10/1/2011	\$23.75	\$1.13
10/15/2011	\$23.25	\$1.11
10/22/2011	\$15.50	\$0.74
	\$15.48	\$0.74
Sunday		
6/2/2012	\$12.50	\$0.60
6/9/2012	\$9.67	\$0.46
6/16/2012	\$11.00	\$0.52
6/23/2012	\$13.00	\$0.62
6/30/2012	\$10.50	\$0.50
7/7/2012	\$9.25	\$0.44
7/14/2012	\$10.50	\$0.50
7/21/2012	\$7.25	\$0.35
7/28/2012	\$8.50	\$0.40
8/4/2012	\$7.50	\$0.36
8/11/2012	\$8.75	\$0.42
8/25/2012	\$13.50	\$0.64
9/8/2012	\$10.00	\$0.48
9/15/2012	\$8.13	\$0.39

Average price/lb. organic (based on Even' Star Organic Farm)
Organic Avg.
\$1.20

9/22/2012	\$13.50	\$0.64
9/29/2012	\$13.00	\$0.62
10/13/2012	\$14.00	\$0.67
	\$10.62	\$0.51
Saturday		
6/8/2013	\$8.50	\$0.40
6/15/2013	\$7.83	\$0.37
6/22/2013	\$11.00	\$0.52
7/6/2013	\$18.00	\$0.86
7/13/2013	\$17.00	\$0.81
7/20/2013	\$17.50	\$0.83
7/27/2013	\$21.00	\$1.00
8/3/2013	\$26.50	\$1.26
8/10/2013	\$22.25	\$1.06
8/17/2013	\$21.00	\$1.00
8/24/2013	\$22.00	\$1.05
9/7/2013	\$11.50	\$0.55
9/14/2013	\$7.88	\$0.38
9/21/2013	\$9.00	\$0.43
9/28/2013	\$10.25	\$0.49
	\$15.41	\$0.73
Average	13.84	0.66

Table S7. Tomato Hybrids Vine Ripe: Wholesale price average 2011-2013.

Tomatoes Vine Ripe MD 25 lb. loose 2011-2013 USDA

Originated in Maryland, Terminal Market = Baltimore

<http://www.marketnews.usda.gov/portal/fv>

Days	USDA Average Price per 25 pounds	USDA Average price/lb.
Tuesday		
6/18/2011	19.00	0.76
6/25/2011	19.00	0.76
7/16/2011	18.00	0.72
7/23/2011	17.50	0.70
7/30/2011	18.39	0.74
8/6/2011	18.63	0.75
8/13/2011	15.63	0.63
8/20/2011	13.00	0.52
8/27/2011	13.50	0.54
9/10/2011	21.00	0.84
9/17/2011	22.00	0.88
9/24/2011	19.50	0.78
	17.93	0.72
Sunday		
7/14/2012	15.00	0.60
7/21/2012	15.50	0.62
7/28/2012	16.75	0.67
8/4/2012	14.67	0.59
8/11/2012	13.75	0.55
8/18/2012	15.00	0.60
8/25/2012	14.50	0.58
9/8/2012	17.50	0.70
9/15/2012	18.25	0.73
	15.66	0.63
Saturday		
7/13/2013	14.75	0.59
7/20/2013	20.25	0.81
7/27/2013	21.00	0.84
8/3/2013	18.20	0.73
8/10/2013	16.83	0.67
8/17/2013	19.67	0.79
8/24/2013	19.00	0.76

Average price/lb. organic (based on Even' Star Organic Farm)
Organic Avg.
\$1.50

8/31/2013	19.63	0.79
9/7/2013	13.83	0.55
9/14/2013	14.75	0.59
9/21/2013	14.50	0.58
9/28/2013	15.00	0.60
	17.28	0.69
Average	16.96	0.68