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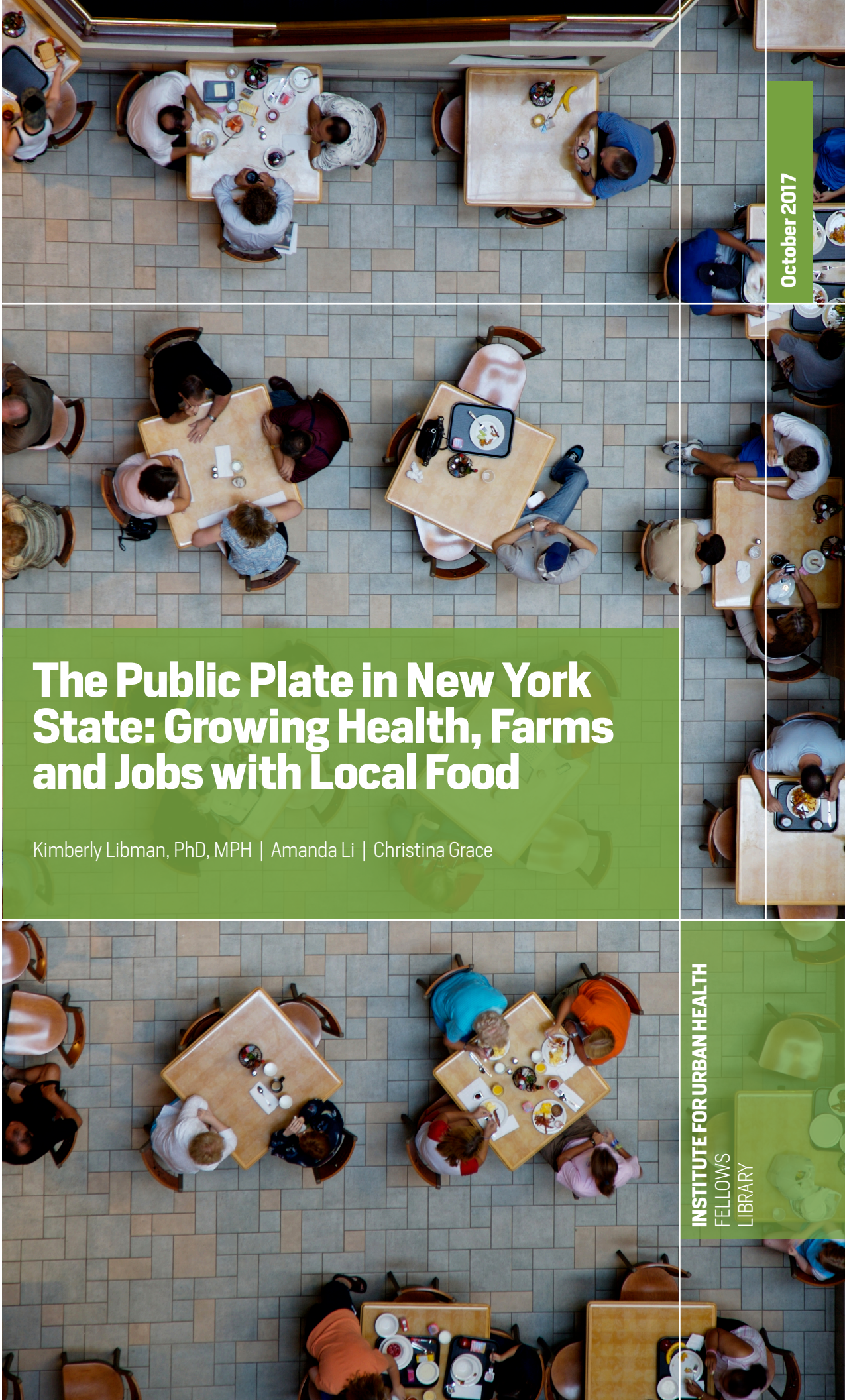

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The Public Plate in New York State: Growing Health, Farms and Jobs with Local Food

Kimberly Libman, PhD, MPH | Amanda Li | Christina Grace

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Table of Contents

1 **Abstract**

2 **Overview**

3 How does Farm to Institution procurement affect health?

4 **Findings**

4 Who does the public plate feed in New York State?

7 How much food does New York State procure? How much of it is local?

9 What are the potential economic benefits of publicly-funded institutions spending 25% of their food dollars on foods grown in NYS?

11 **Recommendations**

13 **Conclusions**

14 **Methodology**

18 **Citations**

22 **Acknowledgements**

ABSTRACT

Food is vital to the health and well–being of all New Yorkers. Producing food is a critical part of the state's economy, and expanding access to fresh, healthy food is essential to solving major public health problems in our state.

Individuals and families buy and grow food to consume in their homes, but many New Yorkers are also fed by institutions such as schools, hospitals, universities, childcare centers, prisons, senior centers and food pantries. The term 'public plate' describes the aggregate of all the food purchased with public dollars administered by New York State (NYS) and served in institutions.

As a strategy, farm to institution procurement leverages public spending to promote economic development, environmental sustainability and health increase farmer participation.

Through its agencies and public facilities, New York State spends more than $957 million to feed approximately 6.6 million people annually. Most people who share the state's "public plate" use the emergency food system and K–12 schools.

Increasing local food purchasing from its estimated baseline of 10% to 25% of public plate dollars has the potential to improve the diets and health of 6.6 million New Yorkers and generate almost $208 million in new economic output in NYS. Achieving this goal would first require government leaders and institutional food buyers to adopt the goal of spending at least 25% of their food budgets on fresh and minimally processed food grown in New York.

OVERVIEW

The term 'public plate' describes food purchased with funding administered by the State of New York that is served in public and publicly-funded institutions. It includes the meals and snacks served in schools, hospitals, universities, childcare centers, prisons, senior centers and food pantries.[1, 2] People who share the public plate are also those most likely to be vulnerable to hunger and diet-related diseases—children, hospital patients, older adults, prisoners and people who are food insecure.[3] The food system is complex and has a significant impact on not only health and nutrition, but also on the environment, local economies, and the health and well-being of workers.[4] Farm to institution procurement enhances the economic viability of local farms and the regional food system. This strategy leverages public spending within our food system to promote economic development, environmental sustainability and health.[5]

In 2013, New York State's Food Metrics law (S.4061/A.5102) established a framework for monitoring food spending by state agencies and tracking the origin of the food they procure. The law tasks the Office of General Services (OGS) and the Department of Agriculture and Markets with setting guidelines for state agencies on local food procurement. In 2014, Governor Cuomo announced the Buy NY program to increase the purchase of local agriculture products in government-run institutions. The goals of Buy NY are supported by the NYS Grown and Certified Program, which labels and markets agricultural products grown and produced in NYS.[6] Throughout this report, healthy local food is defined as fresh or minimally-processed farm products grown or raised in NYS.

Farm to Institution New York State (FINYS) aims to empower institutions to spend at least 25% of their food dollars on food grown in New York. This issue brief is the first in a series that presents evidence on the potential economic and public health benefits of meeting this goal, to establish a baseline against which to measure progress, and quantify the scale of this challenge and opportunity. Future briefs in this series will focus on the impact of local food procurement within specific sectors including K-12 schools, health care, and higher education, to highlight the challenges and opportunities unique to these settings.

How does farm to institution procurement affect health?

Poor diet is a leading contributor to death and chronic disease in the United States and in NYS. Having a poor diet ranks as the number one cause of cardiovascular disease, and is a major risk factor for obesity.[7, 8, 9] Obesity increases risk for serious health conditions such as type 2 diabetes, heart disease, stroke, arthritis and some cancers. Unfortunately, most of New York's population is impacted by obesity and related non-communicable diseases. In 2014, 61.1% of adults were overweight or obese in NYS.[10] The burden of these chronic health conditions is not distributed equitably. In NYS, obesity is more common among blacks or Latinos, people without a college education, and those living in households earning less than $50,000 a year.

Diets that include nutrient-rich foods, such as fresh fruits and vegetables, can prevent weight gain and help control cholesterol levels and blood pressure. Institutional procurement of local foods can provide New York's most nutritionally vulnerable residents with fresh, healthy foods that are also associated with a lower incidence of chronic disease. Fresh foods are minimally processed and are as close to the food's natural state as possible. Examples of this, like NYS grown fruits, vegetables, grains, milk, and grass-fed beef, are of higher quality and are healthier than the processed alternatives typically served in institutional settings. Increasing local procurement may stimulate other changes to menus and food served, such as increasing servings of fruits, vegetables and whole grains. Additionally, the increased income and economic activity associated with spending public plate dollars in NYS may improve health in rural communities. As a health promotion strategy, farm to institution procurement is unique in its ability to address both hunger and obesity while bringing together diverse stakeholders, such as farmers, parents, doctors, educators, cooks and eaters.[11]

Although behavior change efforts based in the health care system, or done at the individual level can be effective, enacting policy change for healthy food procurement at the level of organizations, communities and government can have an impact that is broader, more sustainable and more equitable. Studies have shown that food procurement policy changes in schools can effectively increase healthy choices and reduce unhealthy choices, more so than solely setting nutrition standards.[7] While there is the most evidence on the health impacts of food procurement policies in schools, this evidence provides hope that procurement policy changes will bring similar healthful benefits across other sectors.

FINDINGS

Who does the public plate feed in New York State?

In New York, the public plate feeds approximately 6.6 million people annually.[i] To help illustrate the health promotion opportunity of increasing farm to institution procurement, we divided this group into three categories: people who are food insecure, people living in state-operated facilities and those visiting public places or using public services. This estimate includes some overlapping categories, such as young people who receive subsidized school meals and live in households that get some of their food from food pantries.

Table 1 lists the people who share the public plate by sector. Increasing the budget for food purchased from New York farms with public dollars to 25% would improve the quality of food available to a significant proportion of New York State's 19.75 million residents. The methodology section of this report provides a detailed description of its data sources.

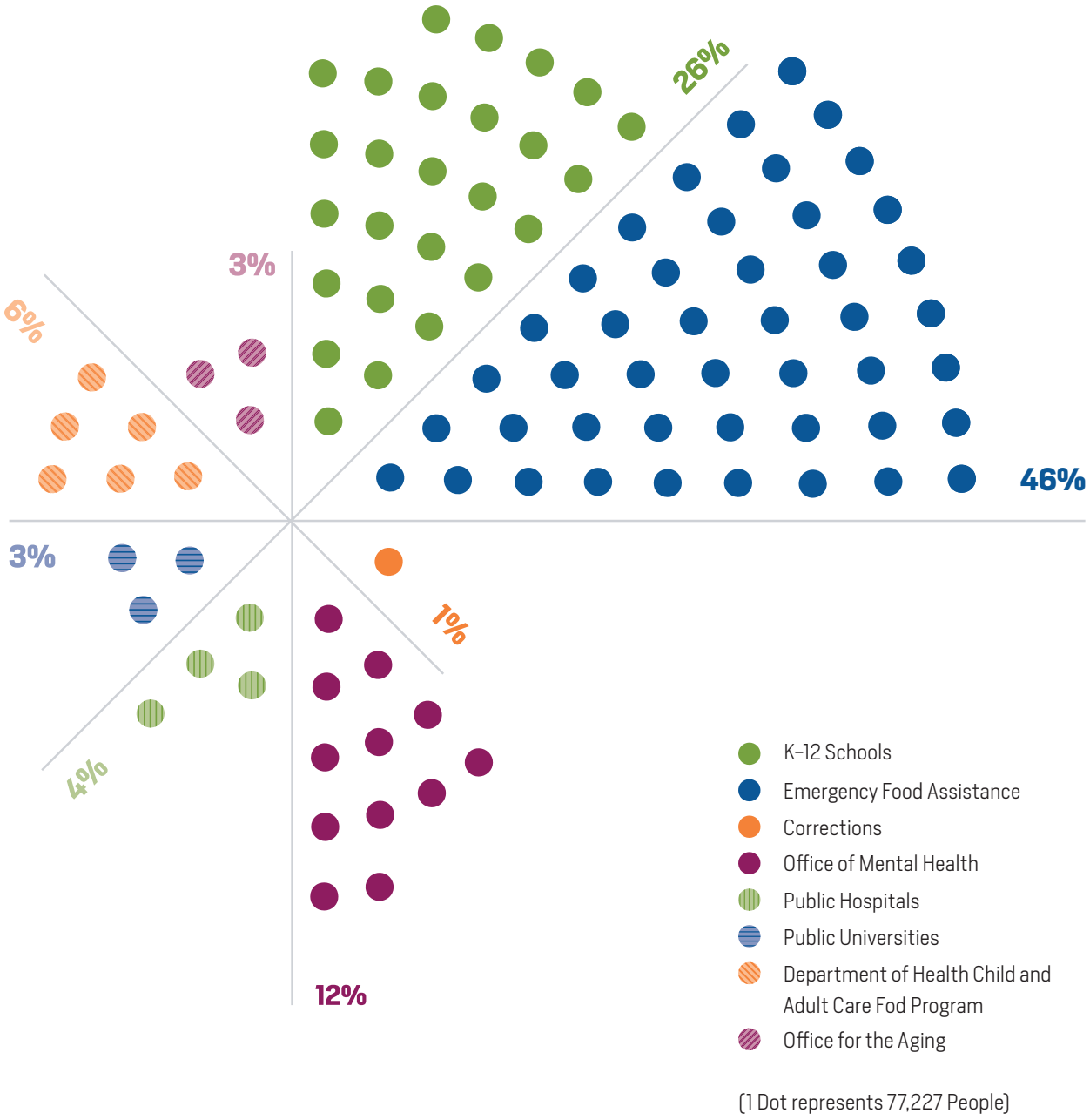
TABLE 1. PUBLIC PLATE USERS BY SECTOR

	SECTOR	EATERS SERVED
	PEOPLE WHO ARE FOOD INSECURE	
	Department of Health Child and Adult Care Food Program	370,000
	Emergency Food Assistance	3,000,000
	RESIDENTS OF STATE-OPERATED FACILITIES	
	Corrections	77,227
	Office of Mental Health	772,221
	PEOPLE SERVED BY PUBLICLY-FUNDED INSTITUTIONS	
	K-12 Schools	1,698,511
	Public Hospitals	297,091
	Public Universities	220,774
	Office for the Aging	209,720
	TOTAL EATERS	**6,645,544**

[i] The data available do not allow for measuring these overlaps. The number of individuals who eat meals funded through government spending may be fewer than 6.6 million.

Figure 1 illustrates the breakdown of the public plate by sector. About 45% of the people fed by NYS's public plate are using the emergency food system. Students in K–12 schools are the second largest group, accounting for 26% percent of public plate eaters.

FIGURE 1. NYS PUBLIC PLATE BY SECTOR



People Who are Food Insecure

Food insecurity is defined by the United States Department of Agriculture (USDA) as "a household-level economic and social condition of limited or uncertain access to adequate food."[12] In 2014, an estimated 13.5% of New Yorkers were food insecure.[13] Many New York state agencies and their sponsored programs provide food for a reduced price or free to qualifying individuals. Hunger and obesity may coexist within households and communities. In addition, people may be both obese and food insecure. Some researchers believe the abundance of cheap, calorie-dense foods in our everyday environment, combined with the need to stretch food dollars, leads to obesity. Other researchers emphasize that the psychology of hunger can lead to a preoccupation with food and using food to cope with stress.[14] Providing healthy local food for free, or at a reduced price, to people who are food insecure promotes health by disrupting the hunger/obesity connection.

Residents of State-Operated Facilities

This group includes adults who live in state-run adult care facilities and veterans' homes as well as people incarcerated in corrections facilities who get all of their meals from the public plate. There are 54 correctional facilities operated by the New York State Department of Corrections and Community Supervision (DOCCS).[15] DOCCS serves more than 12 million meals annually. The inmate population is 95.8% male, 49.5% black and 24.0% Latino, with a significant prevalence of mental illness and chronic disease.[16, 17] Adult care facilities and veterans' homes serve food to a significant number of older adults and those with conditions such as Alzheimer's, dementia, Parkinson's, and stroke. Improving the quality of these meals can have a direct and lasting impact on the health of this population, many of whom are at risk for or already suffer from diet-related chronic diseases. Increasing local procurement by these institutions could benefit the health of these groups, and promote health equity.

People Served by Public Institutions

New Yorkers who rely on public institutions that may include hospitals, public universities and K-12 schools and child and older adult care centers may get a significant portion of their meals from the public plate as well.[18] In addition to providing better nutrition, farm to institution procurement in these settings can model healthy dietary choices through cafeterias and vending machines.

How much food does New York State procure? How much of it is local?

Publicly-funded institutions in NYS spend more than $957 million annually on food. Table 2 lists the estimated annual food spending by sector. Information on local food procurement was not available for all sectors. Those sectors reporting on local procurement spend 10% of their food dollars on products grown, raised or manufactured in NYS.[19] Currently, no data is available for procurement of NYS grown and raised foods that excludes food manufactured or processed in NYS with out of state ingredients.

Table 3 presents the estimated values of the 10% of the current food spend, and that of achieving the 25% NYS public plate procurement goal.

TABLE 2. ESTIMATED FOOD SPENDING BY SECTOR [ii]

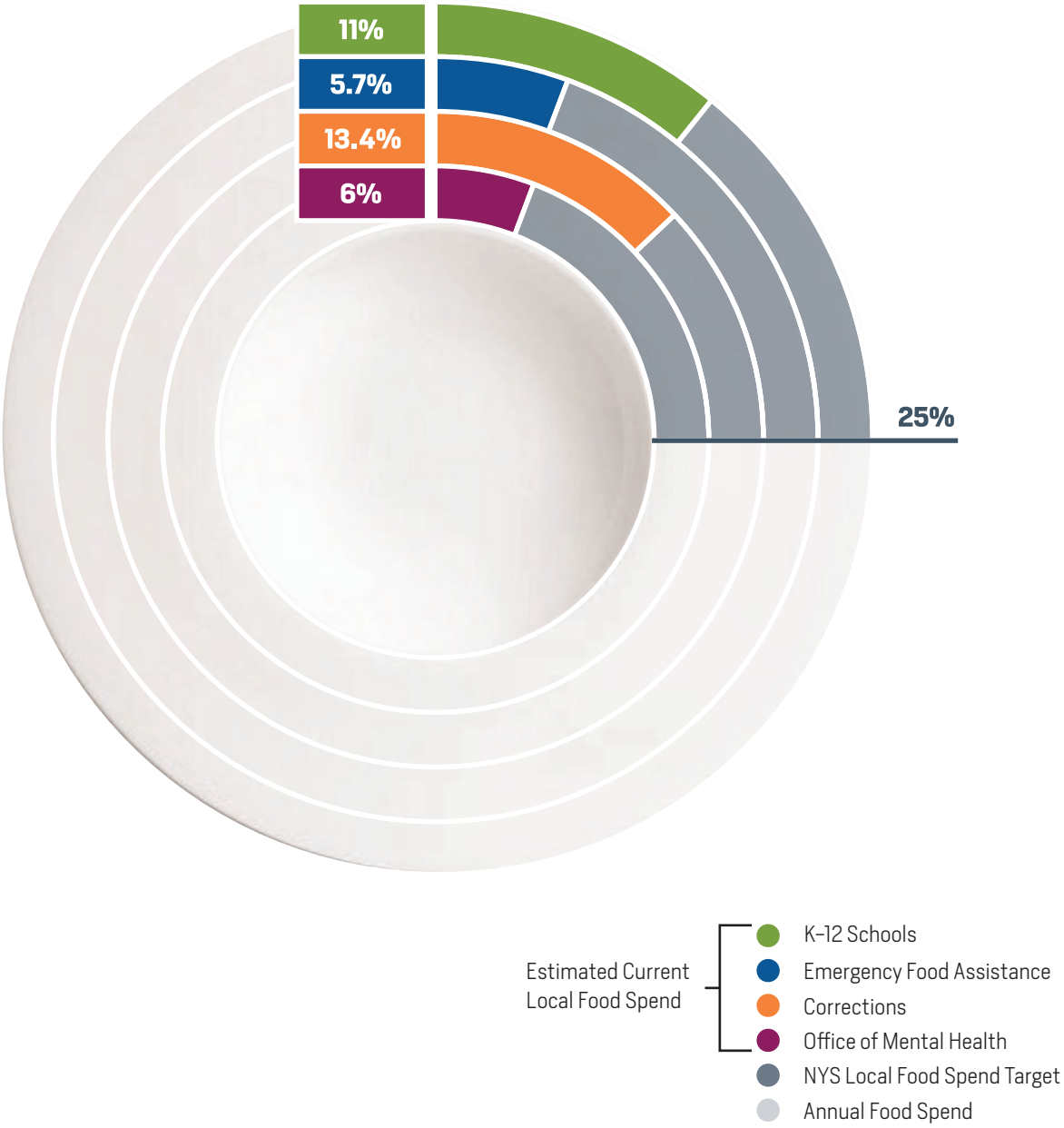
SECTOR	ANNUAL FOOD SPEND	% OF FOOD DOLLARS USED ON NYS PRODUCTS
K-12 Schools	$419,728,000	11%
Public University	$150,382,384	Unknown
Emergency Food Assistance	$52,094,489	5.7 %
Corrections	$16,024,799	13.4%
Office of Mental Health	$20,930,800	6%
Public Hospitals	$10,446,390	Unknown
Department of Health's Child and Adult Care Food Program	$262,000,000	Unknown
Office of Aging	$26,356,453	Unknown
TOTAL	**$957,963,315**	

[ii] The data in this table is based on the best information available at the time of this report. For more details please see Methodology section of this report.

TABLE 3. ESTIMATED INCREASE IN SPENDING ASSOCIATED WITH MEETING THE 25% NYS FOOD PROCUREMENT TARGET

Total Estimated Food Spending by the State of New York	$957,963,315
Estimate of Current Local Food Spending (10%)	$95,796,332
Increasing Local Food Spending Required to reach 25% goal (+15%)	$143,694,497
25% of Total Food Spending by State of New York	$239,490,829

FIGURE 2.



What are the potential economic benefits of publicly-funded institutions spending 25% of their food dollars on foods grown in NYS?

Spending 25% of public plate dollars on minimally processed food grown in New York would create almost $208 million of new economic output in NYS (see Table 4). Increasing local food procurement would be especially beneficial to the health and local economies of rural communities, where farms are often confronted with substantial development pressure. Keeping purchases local can help rural communities create jobs and maintain a sustainable economy.[20, 21]

Here, economic output is a combination of the direct, indirect and induced effects of increasing public spending on healthy local foods. The direct effects are the dollars flowing into the NYS economy from sales of food products. The indirect effects are the dollars from local purchases of inputs (from seeds to heavy equipment) by the farms, food processors, and distributors that sell the food products. The induced effects are the dollars that flow into the economy from day-to-day purchases by employees of those farms, food processors, and distributors.

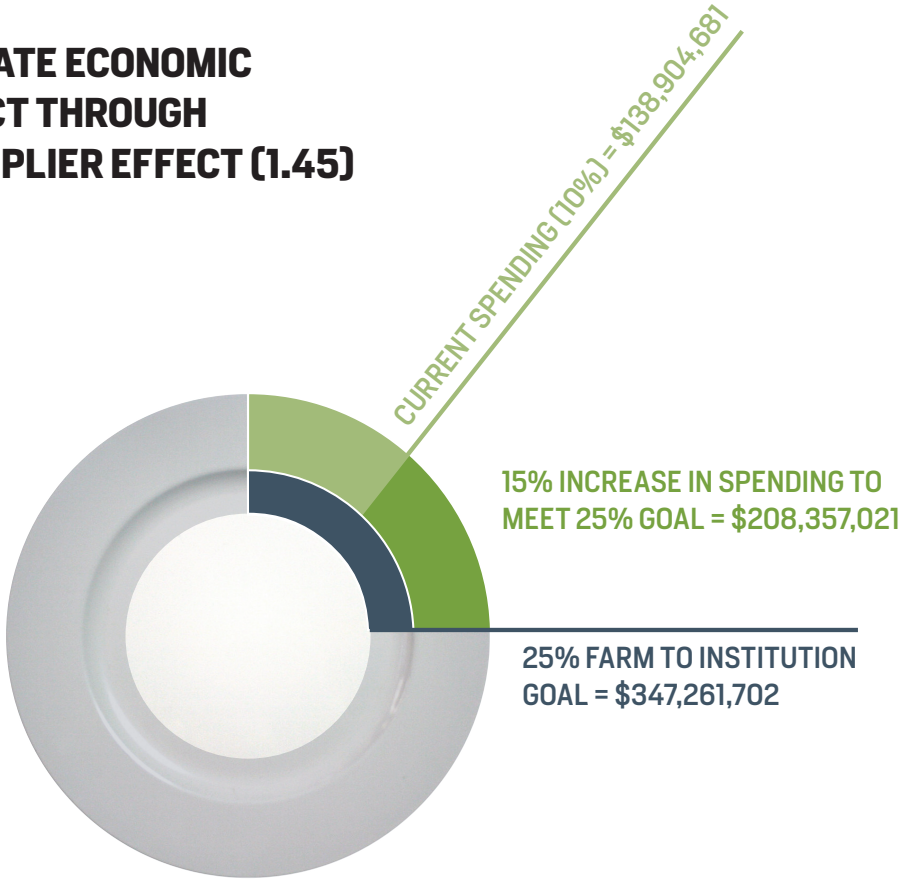
Research on multiplier effects shows that multipliers typically fall between 1.4 and 2.6, indicating that with each locally-spent dollar, an additional $.40 cents to $1.60 is generated for the local economy instead of going elsewhere.[22, 23] The multiplier used in Table 4 (1.45) is NYS specific and generated for this data brief using models originally developed to estimate the benefits of increasing procurement of local fruits and vegetables in K-12 schools.[24, 25] Table 4 and Figure 3, show the economic multiplier applied to the public plate spending estimates from Table 3.

TABLE 4. ESTIMATED ECONOMIC IMPACT ASSOCIATED WITH MEETING THE 25% NYS FOOD PROCUREMENT TARGET

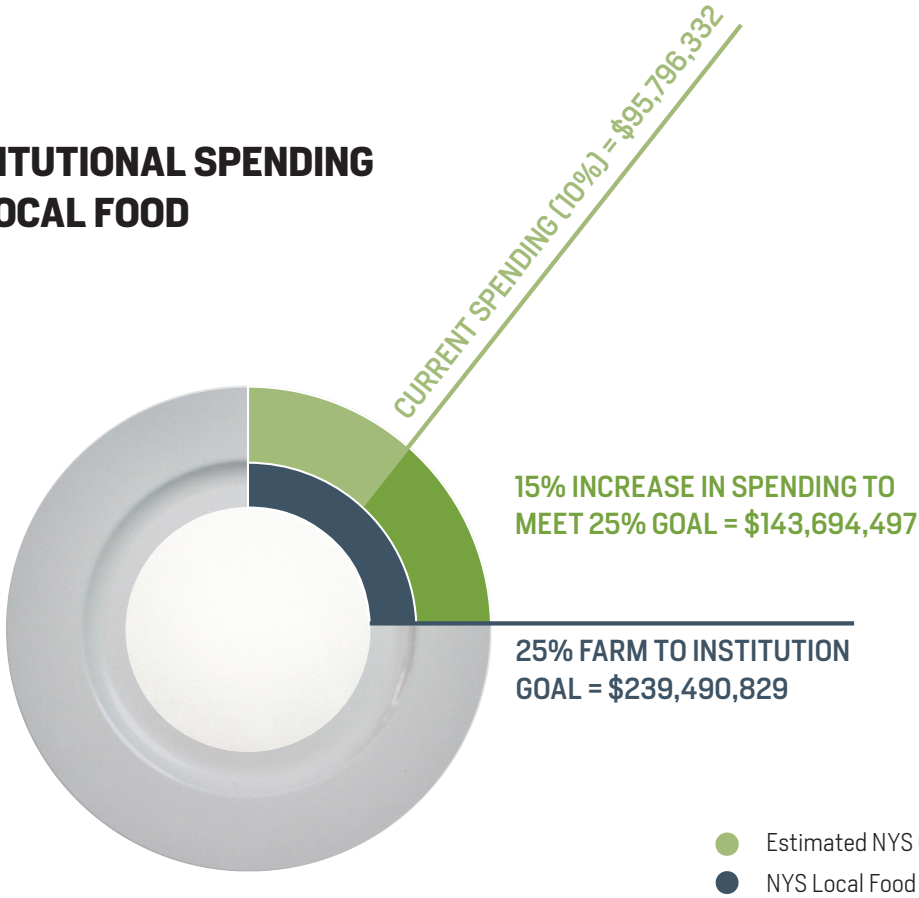
	INSTITUTIONAL SPENDING ON LOCAL FOOD	IN-STATE ECONOMIC IMPACT THROUGH MULTIPLIER EFFECT (1.45)
Current Spending (10%)	$95,796,332	$138,904,681
15% Increase in Spending to Meet 25% Goal	$143,694,497	$208,357,021
25% Farm to Institution Goal	$239,490,829	$347,261,702

FIGURE 3.

IN-STATE ECONOMIC IMPACT THROUGH MULTIPLIER EFFECT (1.45)



INSTITUTIONAL SPENDING ON LOCAL FOOD



- Estimated NYS Current Local Food Spend
- NYS Local Food Spend Target
- Annual Food Spend

RECOMMENDATIONS

Achieving the goal of spending 25% of public plate dollars on healthy local food will require action and input from diverse stakeholders. Strategies for advancing farm to institution procurement in NYS include the following:

State and Local Leaders:

- Improve Food Metrics Bill reporting by distinguishing dollars spent on minimally–processed foods grown or raised in NYS from those spent on foods produced and manufactured using ingredients from out of state.
- Adopt a goal that publicly–funded institutions in NYS spend at least 25% of their food budgets on minimally–processed food grown and raised in the state.
- Provide incentives such as increased reimbursement rates, or set–asides, to institutions that purchase healthy foods grown or raised on farms in NYS. Simplify the procurement process foods grown in NYS.
- Continue investment in food distribution and processing infrastructure to enable delivery of high quality fresh foods from NYS farmers to institutional buyers.
- Invest in training, technical assistance and other support for farm to institution programs at schools, colleges, emergency food providers and other publicly–funded institutions. For example, the NYS Department of Health's Eat Well Play Hard in Child Care Settings program provides technical support to some participating childcare centers participating in CACFP.

Institutional Leaders and Food Service Directors:

- Adopt a goal of spending at least 25% of your food budget on food grown or raised on NYS farms.
- Incorporate farm source reporting requirements into distributor and food service contracts and menus displayed in food service settings.
- Educate eaters about the local foods you serve, the farms you support and the impact you are having on the economy and health through your local menus.

Farmers:

- Participate in NYS's Buy NY and New York State Grown & Certified programs.
- Market your food to institutions, through a distributor, food hub or in concert with a public program, such as the Pilot Project for Unprocessed Fruits and Vegetables in K–12 schools.
- Learn about making connections with institutional buyers and eaters, their expectations and requirements, such as food safety standards, and other strategies to be "market–ready."

Citizens:

- Let your school board, local and state representatives know that you support farm to institution procurement in NYS.
- Start a conversation with a food service professional in your community about where the food they serve comes from. Encourage them to purchase at least 25% of the foods they serve from farms in NYS.

Foundation and Agency Leaders:

- Work with nonprofit and government agencies receiving public funds to buy food to increase purchasing of fresh and minimally processed foods grown in NYS.
- Foundations working in public health, environment, and social justice could incorporate the farm to institution strategy into your organization's priorities.
- Support projects that advance the farm to institution movement's efforts to measure success through shared metrics, provide technical assistance to institutional buyers and sellers, and build supply–chain infrastructure.

CONCLUSIONS

The public plate presents a powerful opportunity to improve NYS's food and farming economy and the health of the most vulnerable New Yorkers. The New York Food Metrics Bill provides legislative support for building the capacity to promote and measure healthy local food procurement for the public plate in NYS. Other strategies for scaling up farm to institution procurement in the state that could complement this policy framework include financial incentives for local purchasing, investment in food service training and capacity building, and the development of critical farm-to-plate infrastructure.

Publicly establishing the 25% goal for local food procurement will help ensure greater accountability across all governmental and non-governmental sectors. With the increased accountability, there will be a particular role for civil society organizations to help track progress.[26]

With local food initiatives building in the education, emergency food, healthcare sectors now—more than ever—is the time to leverage this momentum and collectively establish our 25% local food procurement goal for the state. Reaching this goal has the potential to improve the diets and health of 6.6 million New Yorkers and generate more than $208 million of new economic output in NYS.[27, 28]

METHODOLOGY

To estimate the annual spend administered by NYS to public and publicly-funded institutions to purchase food, and the total population served by this food, we acquired population and food spend data showing the major state agencies and organizations that purchase food and beverages with public funds. Based on the four sectors that reported local procurement, we determined the percentage of total food dollars used on NYS products out of the total food spend, to establish a baseline of 10% current spend on food grown, raised or manufactured in NYS.

We detail the process of data procurement for each of the sectors in this section. For each sector, we made the greatest possible effort to report food-only spending. In addition to the data sources presented below, we also submitted a Freedom of Information Law (FOIL) request with the Office of the State Comptroller. The results of the FOIL request did not reveal any major new information to add to what is already presented in this report.

K-12 Schools

The annual food spend is based on data from the comptroller's report *Locally Grown: Farm-to-School Programs in New York State*, which states that the NYS budget for school lunch and breakfast includes $1.1 billion in Federal and $34.4 million in state funds for 2016.[29] This totals $1,134,400,000 in annual costs of providing school meals. The School Nutrition Association's *School Lunch and Breakfast Cost Study* revealed that, on average, 37% of school meal costs are attributable to food. Therefore, the food cost was estimated at 37% of $1,134,400,000, or $419,728,000.

The estimated population served reflects participation in the School Lunch Program during the 2015 Fiscal Year as reported by the United States Department of Agriculture's (USDA) Food and Nutrition Service.[30] Although the school sector includes other government-funded food programs, we only include participation data for the School Lunch Program in representing the population served by the school sector. This is done to keep our estimates conservative, as there is significant overlap between participation across these programs. It is likely that a child participating in the School Lunch Program will also be participating in the other government-funded food programs offered by the school.

The 11% local spend figure is based on the results of USDA's 2015 national survey of farm-to-school programs. A total of 298 out of 950 school districts in NYS participated, and among these school districts, the average spend on NYS-grown, raised and manufactured products came out to 11% of the total food budget.[29] Some larger school districts, like New York City did not participate in the USDA 2015 survey.

Public Universities

The annual food spend is based on spending data for 25 of the 29, 4-year or more State University of New York (SUNY) campuses that have students living on campus. SUNY Auxiliary Services Association (SASA) tracked this data for the 2013-14 SASA Report to the Governor and SUNY Administration.[31] Note that the total reported spend is an underestimate, as it is missing the spending data for four of these 4-year campuses.

The population served is based on the total SUNY enrollment from the 2015 SUNY Annual Report. Across the 25 campuses reported, 202,144 students are served. The four campuses that are not included in the report serve an additional 18,630, giving us the total population of 220,774.

Data on local spending could not be found for this sector.

Emergency Food Assistance

The total annual food spend is based on the total food entitlement for The Emergency Food Assistance Program (TEFAP) and the Hunger Prevention and Nutrition Assistance Program (HPNAP). The food entitlement allocations for TEFAP in the 2016 fiscal year are reported by the United States Food and Drug Administration's Food Nutrition Services,[32] HPNAP is administered by the New York State Department of Health and provides $34.5 million in funds for healthy and fresh foods for food banks, pantries and soup kitchens.

The population served is based on the estimated number of New Yorkers who depend on emergency food, as reported by Long Island Cares, Inc.[33]

There is currently no NYS-grown requirement for HPNAP, but the 5.7% local spend estimate is based on information tracked by the Department of Health. HPNAP spends just under $2 million of their $35.4 million total food budget on NYS-grown products.

Corrections

To estimate the total annual food spend, we multiplied the total population of inmates within the NYS corrections system by the cost of food per inmate per day by 365 days. The cost of food per inmate, per day, is estimated at $2.84 by the *Times Union*.[34]

The population served is based on the number of people in custody as of March 30, 2016.[35]

The 13.4% local spend value is based on reported information from the 2015 Food Metrics Annual Report issued by the Office of General Services.

Office of Mental Health

The total annual food spend is based on NYS Office of Mental Health's Food Expenditures report for January – December 2015.

The population served is based on the total population estimate from the *Annual Rate of Service By Hispanic Ethnicity, Sex, And Detailed Race* Data Table reported by the NYS Office of Mental Health.[36]

The 6 % local spend estimate is based on the known NY Product Spending recorded across all NYS OMH vendors. This information is also provided in the NYS Office of Mental Health's Food Expenditures report for January – December 2015. Since not all NY purchases are tracked for NYS OMH's commercial/retail suppliers or bakery suppliers, 6 % is likely an underestimate for the total percentage of NYS spending by OMH.

Public Hospitals

To estimate the annual food spend for each NYS public hospital (including SUNY, county, and NYC hospitals), we multiplied the total patient days at that hospital per year by the average cost of food per patient per day. The total annual food spend across the entire sector was then calculated by adding the estimated annual food spend across all public hospitals. According to the 2009 Food Service Director Census of the Top 50 Hospitals, the average raw food cost across the hospitals came out to $6.09 per day for each patient.[37] The total patient days for each hospital were found on the American Hospital Directory.[38, 39]

The population served was based on the total discharge rates across the state's public hospitals. The discharge rates for each hospital were found on the American Hospital Directory.[38, 39] Since NYS hospital beds are not always filled, discharge rates serve as a more accurate reflection of the total population served by a hospital each year than do the number of hospital beds.

Data on local spending could not be found for this sector.

DOH Child and Adult Care Food Program

New York State received nearly $272 million in federal USDA CACFP funds during 2016. Of that, $262 million was used strictly for food costs and any related operating expenses. As an entitlement–funding stream, NYS CACFP does not capture actual food expenses. Rather, food costs are based on meal reimbursements claimed as part of monthly claim submissions. It is important to note that the $262 million overestimates food costs, as it includes food related operating expenses as well.

The population served is based on participation in the Child and Adult Care Food Program during the 2016 Fiscal Year as reported by USDA's Food and Nutrition Service.[40]

Data on local spend could not be found for this sector.

NYS Office for the Aging

As reported by NYSOFA, funding for its Wellness in Nutrition program totaled $27,489,000 in SFY 2014–15.[41] However, this figure does not discriminate between money that was spent on food costs vs. administrative fees. Therefore, in an effort to estimate the food–only spend for NYSOFA, we used CACFP's funding breakdown to extrapolate the percentage of total funding allocated towards administrative fees vs. food costs for an agency like the Office for the Aging. Using the CACFP data to estimate, approximately $10 million out of a total $243 million is allocated towards administrative fees, leaving $233 million for food and food–related expenses. Thus, approximately 95.88% is used for food–related, non–administrative expenses. The $26,356,453. estimate of NYSOFA's food spending is 95.88% of the $27,489,000 total cost of its Wellness and Nutrition program.

The population served is based on reported participation in the NYS Congregate Meals program,[42] Home–Delivered Meals Program,[42] Commodity Supplemental Meal Program,[43] and Veterans' Homes.[44] [iii]

Data on local spend could not be found for this sector.

[iii] Population based on total number of beds at Veterans' Homes throughout New York State. Total number obtained by adding up the number of beds available at New York State Veterans' Home at Oxford, New York State Veterans' Home at St. Albans, New York State Veterans' Home at Batavia, New York State Veterans' Home at Montrose, and Long Island State Veterans' Home: http://www.nysvets.org/.

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