ANALYSIS OF FARMERS MARKET IN US

IE 6600
Computation and Visualization

Submitted by: Apoorv Dudhe
Section 02

Under the guidance of Prof. Sri Radhakrishnan

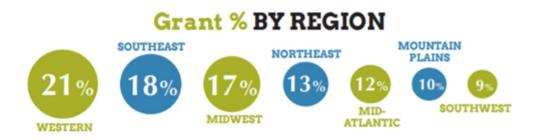
1. ¹Farmers Market Promotion Program

This program is administered by USDA's Agricultural Marketing Service (AMS). The program awards competitive grants, with the goal of expanding access to locally produced agriculture products and developing new market opportunities for farms and ranches participating in direct farmer-to-consumer marketing. It connects consumers with where and how their food is grown, creates new economic opportunities for producers, and draws young people back to rural communities.

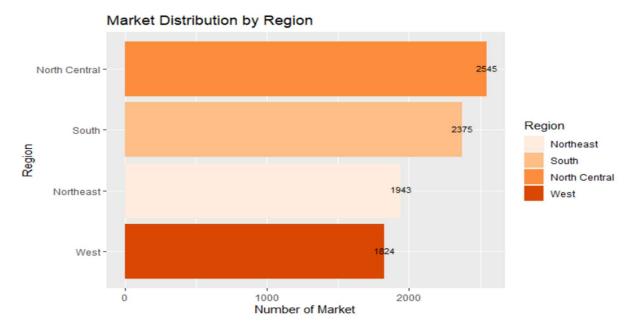
8,675 markets 733 CSAs 1,393 on-farm markets 170 food hubs voluntarily listed in National Farmers Market Directory as of September 2016. Consumers purchased \$1.4 billion worth of local food directly from farmers in 2012.

FMPP provides resources to support outreach and promotional activities that help direct producer-to consumer markets become self-sustaining and can be repeated in communities across the country. These investments bring people together, support strong local and regional food systems, and increase access to healthy foods. Since the 2008 Farm Bill was enacted, FMPP has awarded over \$58 million to 879 projects

a. Grants allocated by Region:



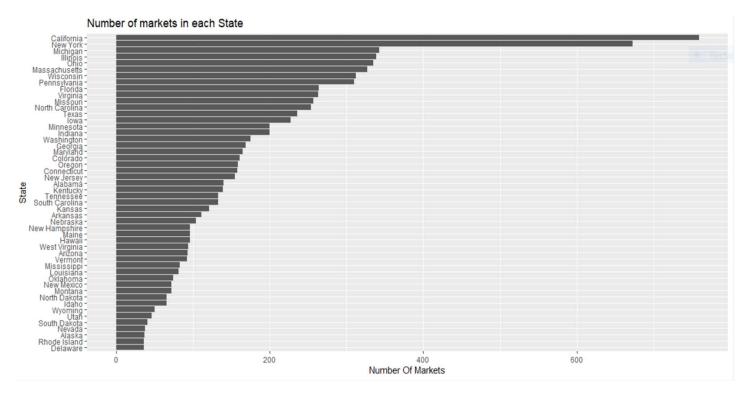
¹ https://www.ams.usda.gov/sites/default/files/media/FMPP2016Highlights.pdf



North Central region seems to have highest number of markets 2545, followed by South 2375, Northeast has 1943 number of markets, West has 1824 number of markets.

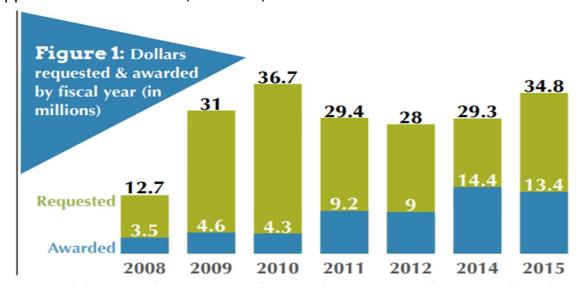
This chart shows us that Maximum number of markets in the country are in North Central region, followed by South region which is close to North Central region. West region has least number of market and moderate number of markets are in the Northeast region

b. Number of farmers market in each state



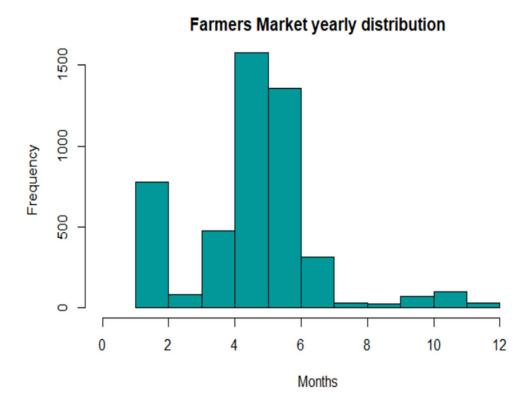
²FMPP awarded 879 grants for over \$58 million since the 2008 Farm Bill. The results of these grant investments include:

- Increases in sales at farmers markets and at other agricultural market outlets
- More customer traffic at the markets
- Increases in new farmers and vendors selling at markets
- Improved infrastructure such as electricity allowing more and varied vendors into markets
- Establishment of new markets and/or local food organizations
- More opportunities for farmers, ranchers, and local food businesses



² https://www.ams.usda.gov/sites/default/files/media/FMPP2016Report.pdf

C. Farmers Market distribution over the year



We can see in this above chart that the frequency of Farmers Market is very high in the month of April, May and decreases around July and stays low till December and again we can see a spike in January.

2. ³Grantee Activities

FMPP grants fall into three categories:

- Marketing & Promotional Activities
- Capacity Building
- Training, Education Technical Assistance

FMPP grants have helped create and expand hundreds of direct producer-to-consumer agricultural markets. Twenty-two percent of FMPP grants supported startup or expansion activities. FMPP investments have also enabled direct producer-to-consumer markets to build capacity and enhance marketing opportunities through the purchase of new equipment, such as increased refrigerated storage. Other activities supported by the grants include market research, agritourism ventures, training, and establishing new partnerships.

Marketing & Promotional Activities:

Marketing activities raise awareness of products, locations, and Electronic Benefits Transfer (EBT) availability at farmers markets and other direct producer-to-consumer venues. The most common type of FMPP grant supported projects, these activities help increase vendor and customer awareness and engagement.

Capacity Building:

Capacity-building projects represent 14 percent of FMPP grants. They are intended to help develop and improve the capacity of farmers markets, CSA programs, agritourism, and other direct producer-to-consumer models to take advantage of market opportunities.

Training, Education Technical Assistance

FMPP training, education, and technical assistance projects serve the needs of farmers and ranchers interested in supplying local direct producer-to consumer markets. Training and education can include market management, food safety, and business training for farmers, ranchers, and market managers, among other topics. These projects also support recruitment of market managers and farmers, as well as outreach to new consumers.

³ https://www.ams.usda.gov/sites/default/files/media/FMPP2016Highlights.pdf

3. 4New Emphasis on Local Food in Farmers Market

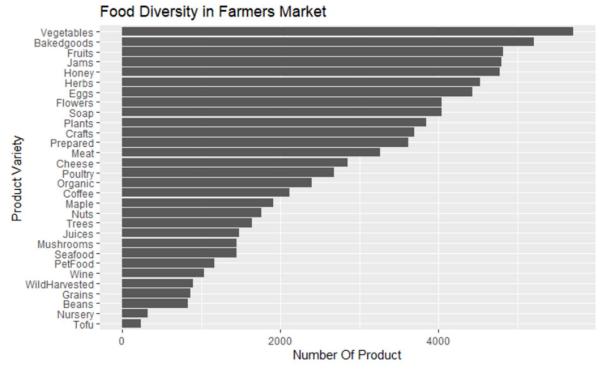
The 2014 Farm Bill increased funding for FMPP and expanded it to support intermediated marketing activities—such as aggregation, processing, storage, and distribution of local foods—through the Local Food Promotion Program. The broader program, known as the Farmers Market and Local Food Promotion Program (FMLFPP) supports food system activities essential for helping farms and ranches meet the growing demand for local food. Total funding was increased from \$10 million to \$30 million per fiscal year, with \$15 million for FMPP projects and \$15 million for LFPP projects (which require 25 percent in matching funds). Since 2014, the LFPP has awarded \$24.6 million to 350 projects, leveraging \$13.6 million in matching funds or in-kind services from the recipients

a. LFPP Grant Types

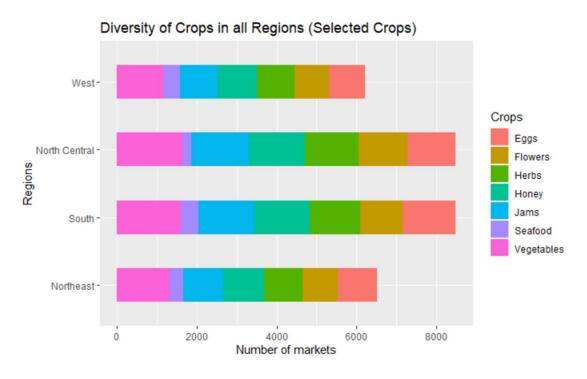
- **PLANNING PROJECTS** are intended for the planning stages of establishing or expanding a local and regional food business enterprise. Activities can include, but are not limited to, market research, feasibility studies, and business planning.
- IMPLEMENTATION PROJECTS are intended to establish a new local and regional food business enterprise, or to improve or expand an existing local or regional food business enterprise. Activities can include, but are not limited to, training and technical assistance for the business enterprise and/or for producers working with the business enterprise; outreach and marketing to buyers and consumers; and non-construction infrastructure improvements to business enterprise facilities or information technology systems.

⁴ https://www.ams.usda.gov/sites/default/files/media/FMPP2016Highlights.pdf

b. Food Diversity in Farmers Market



This graph doesn't tell us if every state sells all the products in the chart above, but it tells us about the diversity of food products sold in Farmers Market all over US. Different number of farmers market are present in each state of each region and hence it cannot be compared.

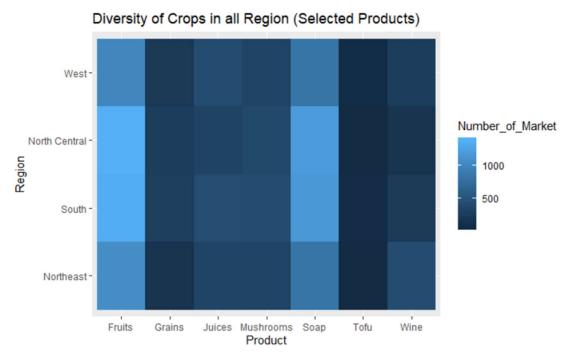


⁵Above graph shows diversity of selected crops in all regions across US.

-

⁵ Eggs, Flowers, Herbs, Honey, Jams, Seafood, Vegetables is used for this graph

It exactly tells us the number of markets selling Eggs, Flowers, Herbs, Honey, Jams, Seafood, Vegetables in 4 regions across US



⁶Above graph shows diversity of selected crops in all regions across US. It exactly tells us the number of markets selling Fruits, Grains, Juices, Mushrooms, Soap, Tofu, Wine in 4 regions across US

-

⁶ Fruits, Grains, Juices, Mushrooms, Soap, Tofu, Wine is used for this graph

4. Effects of different payment systems on growth of Farmers Market

FMPP uses 5 payment methods in order to make it convenient for the sale of any crop in Farmers Market.

- SFMNP
- SNAP
- WIC
- Credit
- WICcash

⁷a. SFMNP: Seniors Farmers' Market Nutrition Program (SFMNP)

The SFMNP awards grants to States, U.S. Territories and Federally recognized Indian Tribal Organizations (ITOs) to provide low income seniors with coupons that can be exchanged for eligible foods at farmers' markets, roadside stands, and community supported agriculture (CSA) programs. Most grant funds must be used for benefits. State agencies may use up to 10 percent of their grants for program administrative costs.

The purposes of the Seniors Farmers' Market Nutrition Program are to provide fresh, nutritious, unprepared, locally grown fruits, vegetables, herbs, and honey through farmers' markets, roadside stands and community supported agriculture programs to low-income seniors; and increase the consumption of agricultural commodities by expanding, developing, or aiding in the development and expansion of domestic farmers' markets, roadside stands, and CSA programs.

⁸b. SNAP: Supplemental Nutrition Assistance Program (SNAP)

The Supplemental Nutrition Assistance Program, formerly known as Food Stamps, is highly effective at reducing food insecurity—the government's measure for whether households lack the resources for consistent and dependable access to food. The report highlights a growing body of research that finds that children who receive food assistance see improvements in health and academic performance and that these benefits are mirrored by long-run improvements in health, educational attainment, and economic self-sufficiency. The report also features new research that shows benefit levels are often inadequate to sustain families through the end of the month—resulting in high-cost consequences, such as a 27 percent increase in the rate of hospital admissions due to low blood sugar for low-income adults between the first and last week of the month, as well as diminished performance on standardized tests among school age children.

⁹c. WIC: Special Supplemental Nutrition Program for Women, Infants, and Children

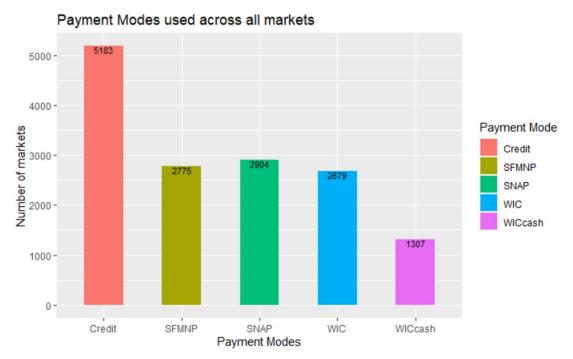
⁷ https://fns-prod.azureedge.net/sites/default/files/sfmnp/SFMNPFactSheet.pdf

⁸ https://www.fns.usda.gov/pressrelease/2015/wh-120815

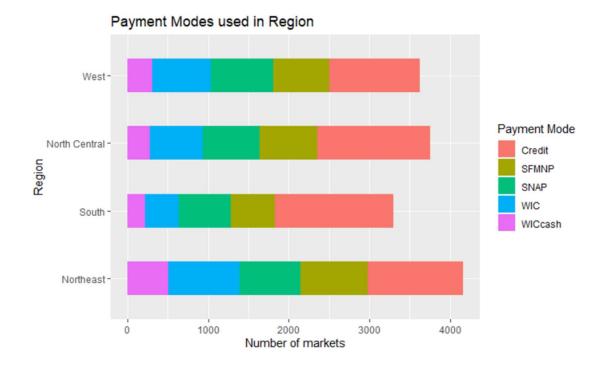
⁹ https://fns-prod.azureedge.net/sites/default/files/fmnp/WICFMNPFactSheet.pdf

The FMNP is associated with the Special Supplemental Nutrition Program for Women, Infants and Children, generally known as WIC. The WIC Program provides supplemental foods, health care referrals and nutrition education; including, breastfeeding promotion and support at no cost to low-income pregnant, breastfeeding and non-breastfeeding postpartum women, and to infants and children up to 5 years of age, who are found to be at nutritional risk.

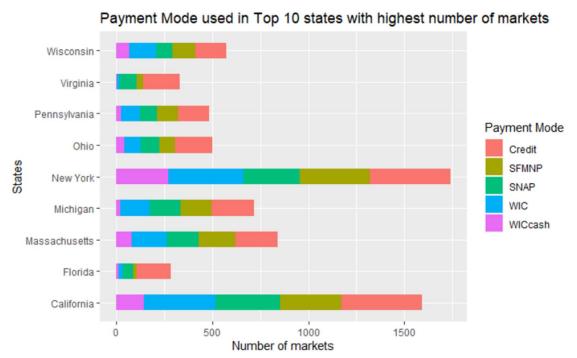
The FMNP was established by Congress in July 1992, to provide fresh, nutritious, unprepared, locally grown fruits, vegetables, and herbs through farmers' markets and roadside stands to WIC participants, and to expand the awareness, use of, and sales at, farmers' markets and roadside stands.



Above graph helps us understand the Payment modes used across all Farmers market in US. We can clearly see that Credit Mode of Payment is used in 5183 number of markets and WICcash is the least preferred with being used in 1307 number of markets.



Above graph shows the Payment Mode used in Farmers Market in all Regions across US



¹⁰Above graph shows the Payment Mode used in Top 10 states with highest number of farmers market.

¹⁰ Wisconsin, Virginia, New York, Ohio, Florida, Massachusetts, Michigan, California, Pennsylvania, Virginia are used for the graph

Conclusion:

¹¹Farmers markets are an integral part of the urban/farm linkage and have continued to rise in popularity, mostly due to the growing consumer interest in obtaining fresh products directly from the farm. Direct marketing of farm products through farmers markets continues to be an important sales outlet for agricultural producers nationwide. Growth of 6% in the number of farmers suggest that the FMPP, and all supporting Payment programs are helping in fulfilling the common goal of an individual to eat fresh direct from the farm, enabling the farmers to develop a good healthy personal relationship with customers and maintain loyalty with them.

¹¹ https://www.ams.usda.gov/services/local-regional/farmers-markets-and-direct-consumer-marketing

References:

- https://www.ams.usda.gov/sites/default/files/media/FMPP2016Highlights.pdf
- https://www.ams.usda.gov/sites/default/files/media/FMPP2016Report.pdf
- https://fns-prod.azureedge.net/sites/default/files/sfmnp/SFMNPFactSheet.pdf
- https://www.fns.usda.gov/pressrelease/2015/wh-120815
- https://fns-prod.azureedge.net/sites/default/files/fmnp/WICFMNPFactSheet.pdf
- https://www.ams.usda.gov/services/local-regional/farmers-markets-and-direct-consumer-marketing