

Direct to consumer marketing is an effective strategy to distribute agricultural and farm products to consumers. Farmers market forms an important link between farmers and consumers that helps foster farmer consumer relationships. The United States Department of Agriculture (USDA) has recognized the importance of farmers markets. Through its many programs, USDA has helped the growth of farmers markets across the country. As on date 8,791 farmers markets are listed in USDA's National Farmers Market Directory. The data is stored in "**fmarket.csv**". The data file contains the following details

1. Variables indicating the geographical location of the farmers market (lat, long, street, county, state etc.)
2. Variables indicating types of products (herbs, vegetables, seafood etc.)
3. Variables indicating type of payment accepted (cash, WIC, SNAP, SFMNP etc.)
4. Variables indicating online social media presence
5. Variables indicating date and time

### Project Objectives

1. As a data analyst working for a consulting company, generate a detailed report on the growth and evolution of the farmers market in the US
2. Use the data to generate visual insights on the geographic, product and payment system distribution of farmers market across the country
3. The aforementioned data does not cover all the key points related to the growth of farmers market. Additional insights outside the data set must be included in the report
4. The following are the sources for additional insights
  - a. The Farmers Market Promotion Program (FMPP) 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. Since 2006, FMPP has helped communities establish farmers markets, community supported agriculture (CSA) enterprises, road-side stands, and agritourism in all 50 States and U.S. territories<sup>1</sup>. Incorporate the FMPP impetus in your report.

#### Source:

<https://www.youtube.com/watch?v=GZcQTHMmw8I>

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

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

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

- b. FMPP awarded grants

**Source:**

<https://www.ams.usda.gov/services/grants/fmpp/awards>

- c. **Effects of different payment systems on the growth of farmers market.**

- i. The Seniors Farmers' Market Nutrition Program (SFMNP) is designed to: a) Provide low-income seniors with access to locally grown fruits, vegetables, honey and herbs, b) Increase the domestic consumption of agricultural commodities through farmers' markets, roadside stands, and community supported agricultural programs, c) Aid in the development of new and additional farmers' markets, roadside stands, and community support agricultural programs.

**Source:**

<https://www.fns.usda.gov/sfmnp/senior-farmers-market-nutrition-program>

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

- ii. The Supplemental Nutrition Assistance Program (SNAP) provides nutrition benefits to supplement the food budget of needy families so they can purchase healthy food and move towards self-sufficiency.

**Source:**

<https://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program>

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

<https://www.fns.usda.gov/pressrelease/2015/fns-0007-15>

- iii. The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides federal grants to states for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk.

**Source:**

<https://www.fns.usda.gov/wic>

<https://www.fns.usda.gov/fmnp/wic-farmers-market-nutrition-program>

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

**d. Additional Resources:**

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

<https://www.ams.usda.gov/sites/default/files/media/2014%20Farmers%20Market%20Managers%20Survey%20Summary%20Report%20final%20July%2024%202015.pdf>

**Submission Format**

1. Submit your report in word or pdf format
2. Report must have a title page with name of the student and the section number
3. Submit the codes accompanying the report in .R or .Rmd format
4. The codes must be according to tidyverse standard
5. The charts used in the report must be at least 300 dpi
6. The charts used in the report must have the following elements
  - a. Plot and axis title
  - b. Axis and axis tick values that can be understood by the users. For example use the term “Organic” instead of “Org”
  - c. Minimum font size of 14 pts
  - d. Legends (If applicable). Legend title should be understood by the users. For example use “Type of products” instead of “Type\_pr”
  - e. Colors must be selected according to the type of variable (ordered, unordered, or numerical)
7. If additional information is used from other sources, the sources must be cited as a footnote.
8. All the assumptions for the charts must be mentioned in footnote

**DueDate**

**Feb/25/2020 (by midnight)**